DVR-IP4CF

U S E R   M A N U A L

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$C \in FC$

INDEX

The author assumes no responsibility for any errors or omissions that may appear in this document nor does it make a commitment to update the information herein.

1. SAFETY PRECAUTIONS

<table>
<tr><td rowspan="2">⚡</td><td>CAUTION</td><td rowspan="2">!</td></tr>
<tr><td>RISK OF ELECTRIC SHOCK.
DO NOT OPEN!</td></tr>
<tr><td colspan="3">CAUTION :
TO REDUCE THE RISK OF ELECTRICAL SHOCK,
DO NOT OPEN COVERS (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.</td></tr>
</table>
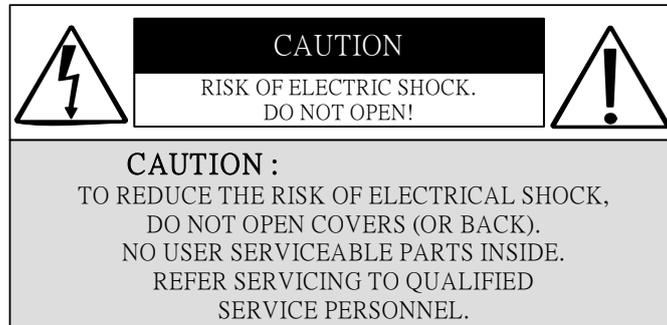
It is advised to read the Safety Precaution Guide through carefully before operating the product, to prevent any possible danger.

⚡ **WARNING:** Alert the user to the presence of un-insulated "dangerous voltage".

! **CAUTION:** Alert the user the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the appliance.

The power cord is the main power connection. Therefore, constantly plug and unplug of the power cord might result in malfunction of the product.

Do not install the product in an environment where the humidity is high.
Unless the product is waterproof or weatherproof, otherwise poor image quality may quality.

Do not drop the product or subject them to physical shocks.
Except for vandal-proof or shockproof product, otherwise malfunctions may occur.

Never keep the product to direct strong light.
It can damage the product.

Do not spill liquid of any kind on the product.
If it gets wet, wipe it dry immediately. Alcohol or beverage can contain minerals that corrode the electronic components.

Do not expose to extreme temperatures.
Use the product at temperatures within -10° C ~ +50° C.

2. INTRODUCTION

2.1 Product Introduction

This world leading technology is perfect for office safety, personal home security, public environments, industrial surveillance, schools, and so on. It features quick and simple installation and is the best choice for your own ultimate protection.

This state-of-the-art 4-channel digital recording system is equipped with an advanced embedded CPU operating system and powerful M-JPEG compression technology. Standalone type DVR system that is based on embedded an OS, replacing the conventional DVR. The most user-friendly surveillance System can operate the functions by controlling the front panel, using time and event to playback recorded materials, efficient live recording and playback functions, convenient CF card function that supports ATA HDD, and the most useful storage device of removable Hard Disc Drive. Password protection on remote controlling. What more can you expect!

2.2 Application

- **Security:**

  ATM, bank, gas station, shop, home and parking lot.

- **Factory/ Office:**

  Factory, warehouse, remote technology support, conference room, and outdoor parking lot.

- **Education/ Military/ Government Organization:**

  Important facilities, important areas, rapid transit system, and railroad safety.

- **Recreation/ Activities:**

  Sports and news broadcast.

- **Home:**

  Elevator, doorway, community safety, and hotels.

- **Hospital/ Kindergarten:**

  Hospital and isolated ward, home for the aged, kindergarten, and Day Care center.

3. FEATURES

- **Auto video input detection**
  Auto detects video input (NTSC/ PAL) and supports combined use of color and b/w cameras.

- **Supports high quality digital video recording**
  Adopts M-JPEG compression technology (NTSC: 30fps/ PAL: 25fps).

- **Video Size**
  Video Resolution
  • NTSC: 640x 224
  • PAL: 640x 272
  Monitoring Resolution
  • NTSC: 720x 480
  • PAL: 720x 576

- **Replaces a conventional VCR.**
  Stores video on hard disks instead of VCR tapes. Large disk capacity, there is no need to replace the recording medium.

- **Built-in motion detection function.**
  Motion detection sensitivity rate may be setup under motion detection function.

- **High efficient event recording, saving storage capacity.**
  Motion detection function enables recording only when system detects motion, thus increases the amount of time available for recording.

- **Easy access to the desired record.**
  Time & date search supports instant retrieval of images and alarm event search makes searching simpler.

- **Data can be stored in CF card.**
  Cards inserted in the CF card slot makes it easier to back up recordings and transfer images to a PC.

- **Removable hard disk box.**
  Removable hard drive mechanism allows you to backup important data with ease.

- **Live monitoring through Internet from anywhere.**
  Built-in TCP/ IP network interface (auto detects and switches to 10/ 100Base T).

4. PACKING LIST

Check to make sure all of the items shown below are included in your product package. If something is missing, contact your dealer as soon as possible.

(1) DVR (digital video recorder)

(2) Power adapter

(3) Power Cord

(4) User Manual

(5) CD-ROM

5. INSTALLATION

5.1 Connectors on the Rear Panel

Please setup the connection by following the illustration shown below:
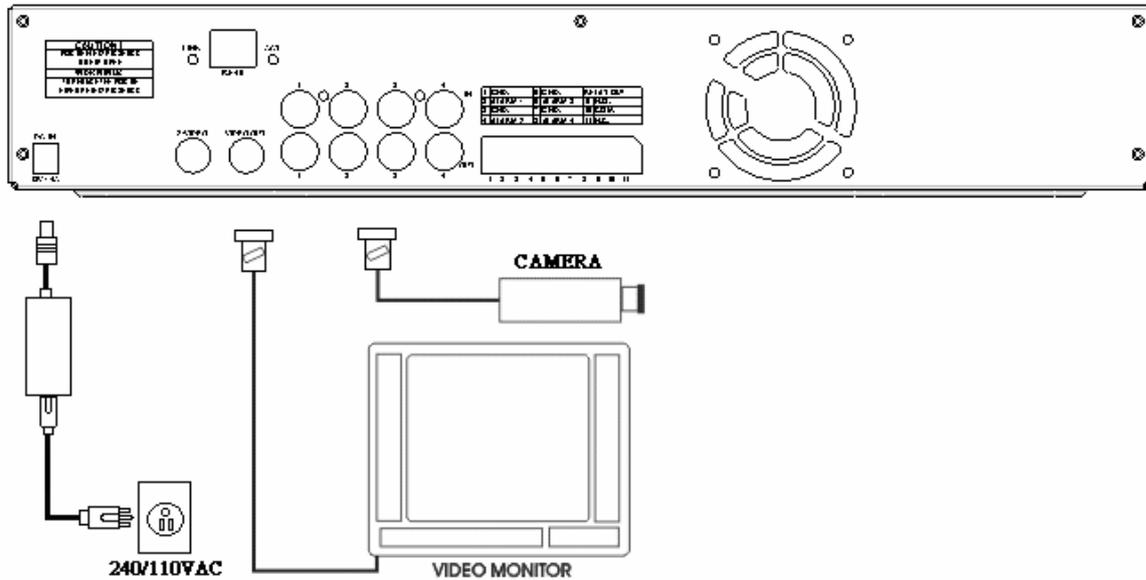
6. NAME and FUNCTION of EACH PART

6.1 Front Panel Buttons and Controls

1. **Removable HDD Box**

(1)
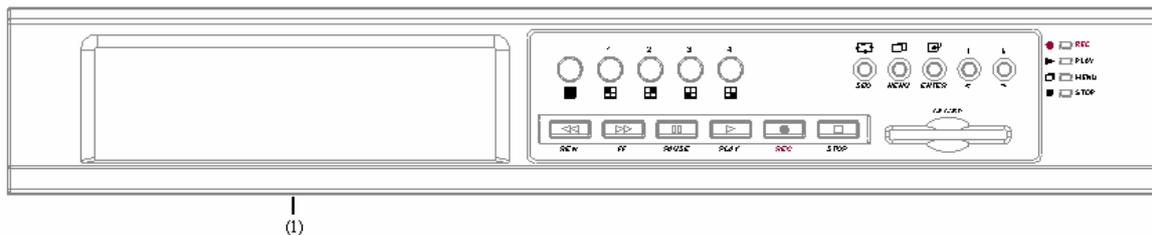
2. **Front Panel Button Definition**
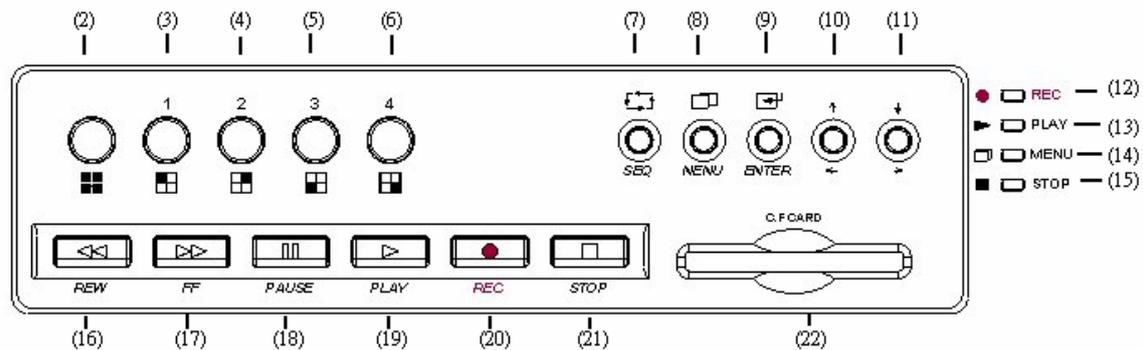
(2) QUAD	:	Press this button under monitoring or quad mode to show quad display.
(3) CH 1	:	Press this button under monitoring or record mode to show CH 1 in full-screen.
(4) CH 2	:	Press this button under monitoring or record mode to show CH 2 in full-screen.
(5) CH 3	:	Press this button under monitoring or record mode to show CH 3 in full-screen.
(6) CH 4	:	Pres this button under monitoring or record mode to show CH 4 in full-screen.
(7) SEQ	:	Press this button under monitoring or record mode. All channels are displayed full-screen in turn repeatedly.
(8) MENU	:	Press this button under monitoring mode to enter setup menu and under setup mode to return to the previous selection.
(9) ENTER	:	Press this button to confirm after data input.
(10) UP/ LEFT	:	Press this button to move the cursor up or down.
(11) DOWN/ RIGHT	:	Press this button to move the cursor left or right.
(12) REC LED	:	LED lights while recording.

(13) PLAY LED	:	LED lights while playing playback.
(14) MENU LED	:	LED lights when entering setup menu.
(15) STOP LED	:	LED lights when entering stop mode.
(16) REC	:	Press this button under monitoring mode to start recording.
(17) STOP	:	Press this button under playback to return to start monitoring.
(18) PAUSE	:	Press this button under playback to pause playback.
(19) REW	:	Press this button under playback to start reverse scanning.
(20) PLAY	:	Press this button under playback mode to start playback.
(21) F.F.	:	Press this button under playback mode to start fast-forward scanning.
(22) CF-CARD SLOT		

6.2 Rear Panel Buttons and Controls
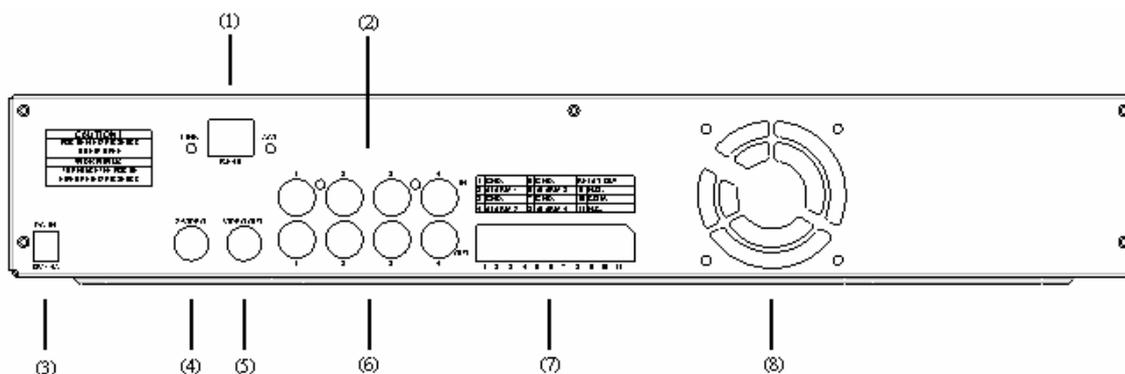
(1) RJ45: Internet connection terminal

(2) Video Input [VIDEO IN]: Connect to cameras.

(3) DC 12V (4A) [Power Input terminal]: Power socket.

(4) S-Video Output [S-VIDEO OUT]: Connect to the monitor.

(5) Video Output [VIDEO OUT]: Connect to the monitor.

(6) Video Loop [VIDEO LOOP THROUGH].

(7) I/O Block [I/O BLOCK]: Terminal function description is shown below.

No.	Name	Function
1	GND	Ground Terminal（signal）
2	ALARM 1	Alarm Input Terminal
3	GND	Ground Terminal（signal）
4	ALARM 2	Alarm Input Terminal
5	GND	Ground Terminal（signal）
6	ALARM 3	Alarm Input Terminal
7	GND	Ground Terminal（signal）
8	ALARM 4	Alarm Input Terminal
9	N.O.	Alarm Output (Normal Open)
10	COM	Alarm Output Terminal (NC/ NO COM)
11	N.C.	Alarm Output (Normal Close)

(8) Cooling Fan.

7. OPERATING PROCEDURE

7.1 Power On

When powered on, the DVR will auto-detect its peripherals (self-testing, warm-up, auto detects the hard disk and starts CF-card testing, and etc.)

The system will detect the video input and judge whether the video system is NTSC or PAL. When video input is unable to be detected (VIDEO LOSS), the system will send out an alarm, press any button to stop the alarm (it will not affect the actual recording). Always connect cameras to the DVR before powering up to properly detect the cameras.

7.2 Monitoring Mode

This mode is the default for our system after power on. Under this mode, system supports live view for monitoring. Press《REC》button, the system enters the record mode, press《PLAY》button to start playback, press《MENU》button to enter the menu setup display. During record or playback, press《STOP》button to stop the current activity and returns to monitoring mode. Under the main menu, press《MENU》 to return to monitoring mode.

During playback, press《STOP》button to return to monitoring mode. Press FF to change the speed (FF1, FF2 or FF3), or press《REW》button to start reverse playback.

⊙ To reset the DVR to factory defaults (under quad or single display), press 《PAUSE》button 5 times, the message《ALL SETTING DATA IS INITIALIZED.》 will be displayed by flashing 3 times, and after reset the password will be set as default value (111111).

⊙ When the reset procedure has been completed, the message "DVR RESET COMPLETED. TURN THE DVR ON & OFF" will be displayed, then please restart the DVR.

7.3 Record Display
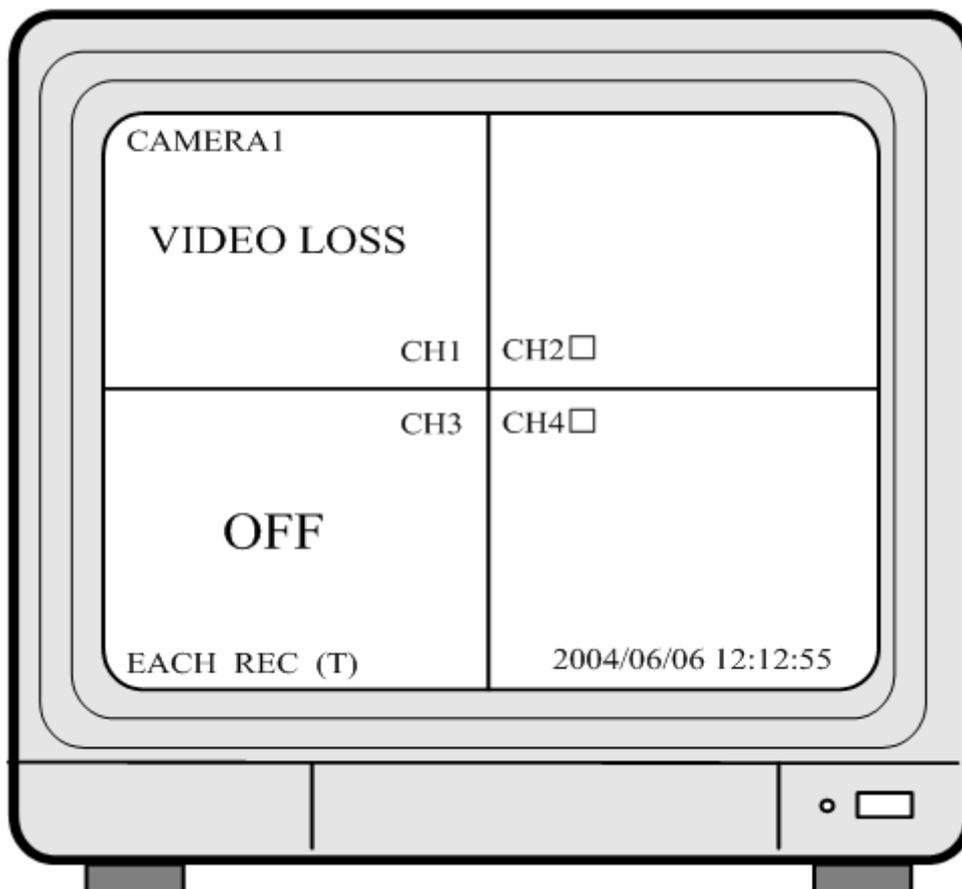
Note: CH1: No block figure next to CH1 indicates that it is not recording.

EACH: Record Type   QUAD: Record Type

(T): TIMER RECORD   (A): ALARM RECORD   (M): MIX RECORD

(□): Currently under recording.

VIDEO LOSS: Video input unable to be detected.

CAMERA1: Name for CH 1.

OFF: Channel is set to "OFF".

7.4 Playback Display

```
                    TIME SEARCH
                HARD DRIVE: MASTER

        03/11/27 18:20:42 - 03/11/27 19:32:32

          >01 TIME 2003/11/27 18:20:42
           02 TIME 2003/11/27 16:43:56
           03 TIME 2003/11/27 15:07:11




    (<,>) MOVE   (ENTER)CHANGE   (PLAY)PLAY
    (MENU) EXIT   (FF)SELECT EVENT OR TIME
```

```
 >01   TIME  ┐
              ├ Total 7
 >07        ┘
```
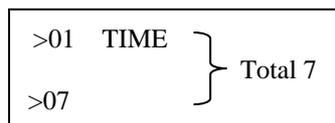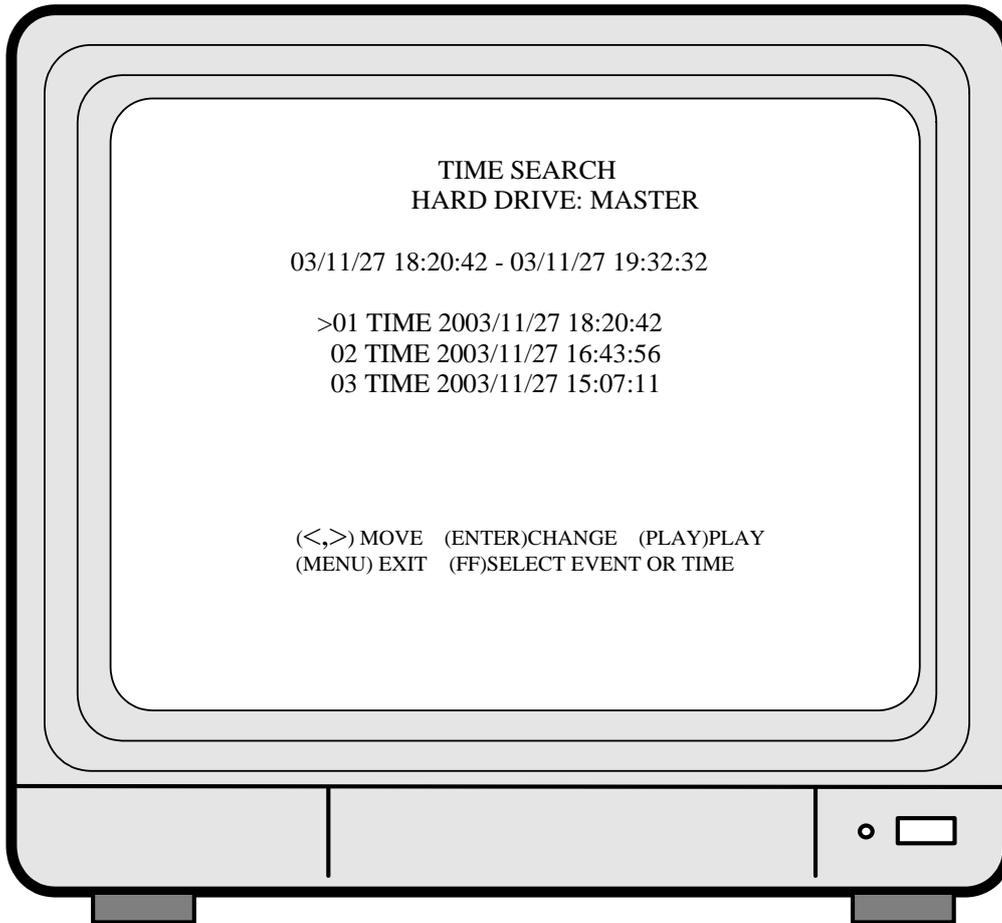
1. Press《STOP》button to stop recording, then press《PLAY》button to enter the search .

2. Press《FF》button, then《PLAY》button to playback data from old to new. Use 《↑》and《↓》button to move the cursor to the desired playback time, press 《PLAY》button to start playback.

3. When you wish to view recorded videos of a specific time, use《FF》button, 《↑》or《↓》button, and 《ENTER》button to make changes.

4. In playback press《PAUSE》button to pause and press《PLAY》button to play.

5. Press《FF》button to fast-forward playback.

6. Press《REW》button to reverse playback.

7. Press《STOP》button to stop playback.

7.5 Note!

1. "Auto Sequence" function operates only during recording and under live status (Dwell Time: 5 seconds). Sequencing will bypass a channel with video loss if programmed accordingly (Example: Video Loss occurs on CH3, sequencing order: CH1→CH2→CH4→QUAD).

2. To deactivate "Auto Sequence" function, press 1, 2, 3, 4, or QUAD.

3. Withdrawing the CF card, each time before the system (DVR) enters recording or playback status, it auto detect the hard disk (detection time is about 5 seconds - WD brand hard disk is about 30seconds).

4. When coping data from the hard disk to a CF card, make sure that the data has been completely copied onto the CF card before withdrawing it from the slot. Otherwise an error may occur.   The system displays "CF CARD REMOVED", and auto returns to live display.

5. Camera name may only be viewed during recording display and under live display.

8. SYSTEM SETUP

8.1 Menu

```
           （1）            ■        (2)
(3) > SYSTEM SETUP
       CAMERA SETUP
       RECORD SETUP
       BUZZER SETUP
       EVENT LIST
       CF CARD SETTING
       HARD DRIVE SETUP
(4) PRESS (< >), THEN (ENTER)
     PRESS (MENU) TO EXIT
```
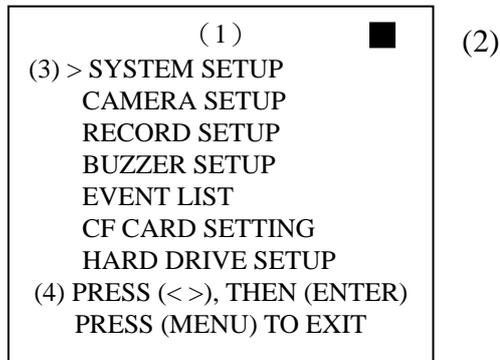
(1) MAIN MENU: Item subject (First menu layer does not have a subject).

(2) Menu Layer Indication: The device consists of four menu layers.

■	：First Menu Layer (Main Menu)
■■	：Second Menu Layer
■■■	：Third Menu Layer
■■■■	：Fourth Menu Layer
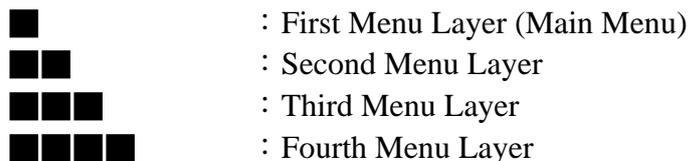
(3) Menu Operation and Setup

Press 《←》 or 《→》 button to move the cursor (>).

Press 《ENTER》 button enter the sub menu.

Press 《MENU》 button:

□ Under second or third menu layer, the system will return to the previous menu layer (second layer to first layer or third layer to second layer) and auto updates the modified data.

□ Under main menu (first menu layer), the system will enter live mode.

Press 《ENTER》 button, to increase or decrease the setting values that has been highlighted.

(4) Menu Layer Operation Guide
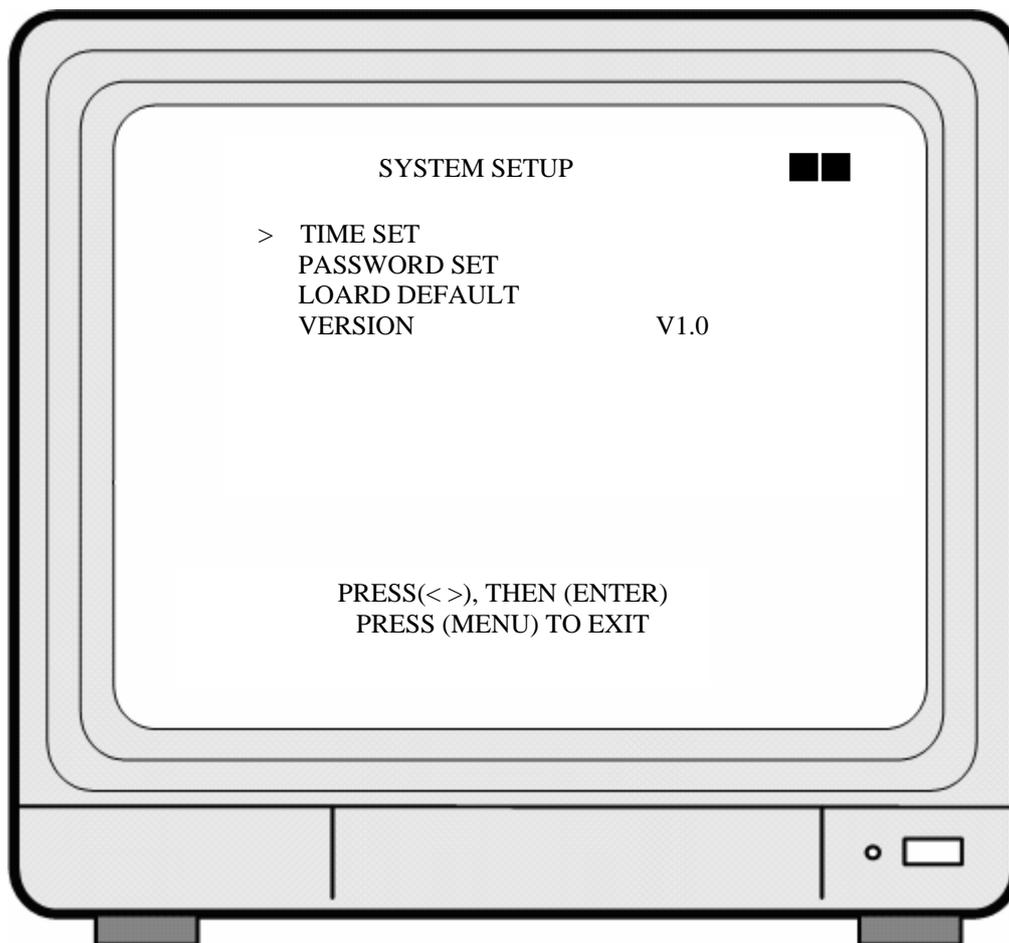
---

speco technologies

8.2 System Setup

```
                    SYSTEM SETUP              ■■

        >   TIME SET
            PASSWORD SET
            LOARD DEFAULT
            VERSION                 V1.0




              PRESS(< >), THEN (ENTER)
              PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Press 《←》 and 《→》 button to move the cursor.

3. Press 《ENTER》 button to proceed.

4. Press 《MENU》 button to exit "System Setup".

5. "System Setup" is situated on the second menu layer. Under this menu layer user may setup the system time, password, and return system to default value, etc (VERSION displayed represents the FIRMWARE version).

8.2.1 TIME SET

```
              TIME                    ■ ■ ■




        2005/01/11 17：23：06
        ^




        PRESS (< >), THEN (ENTER)
        PRESS (MENU) TO EXIT
```
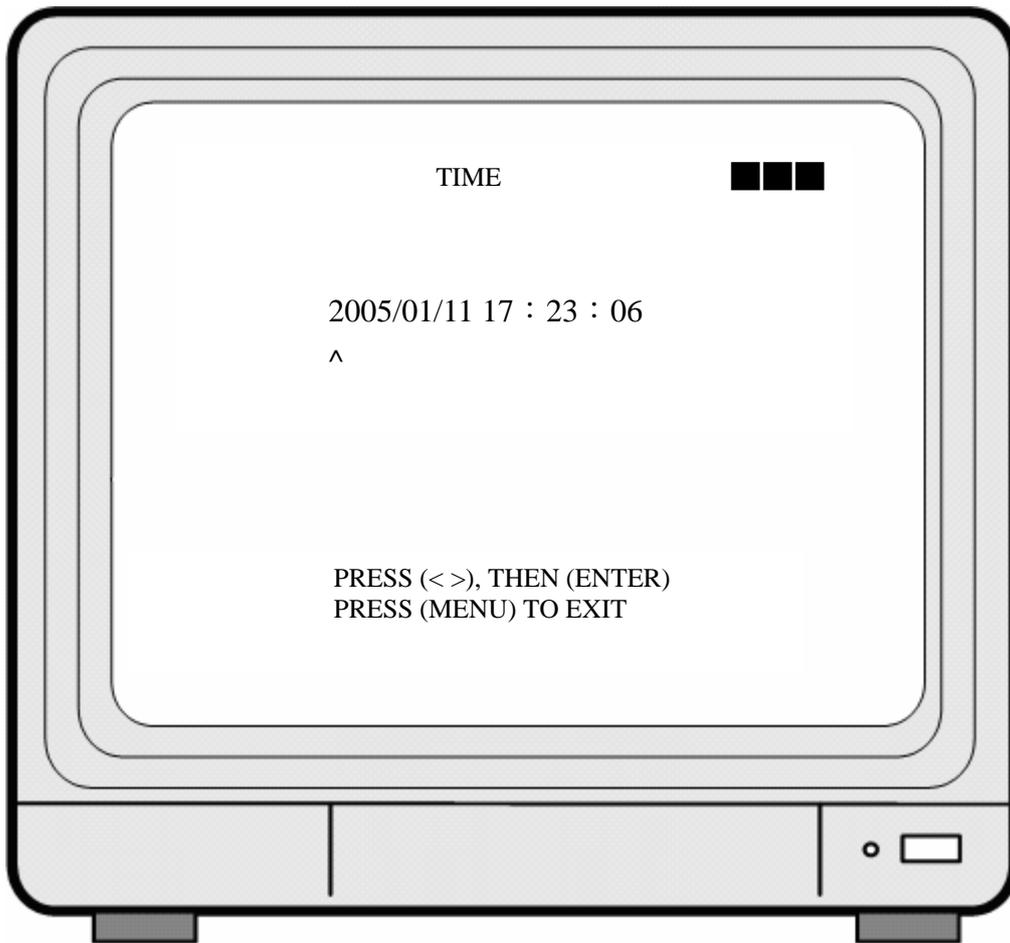
1. Cursor (^) position indicates the current time and date selected.

2. Use 《←》 or 《→》 button to move the cursor.

3. Use 《ENTER》 button to setup time and date.

4. Use 《MENU》 button to exit "Time Setup".

8.2.2 PASSWORD SET
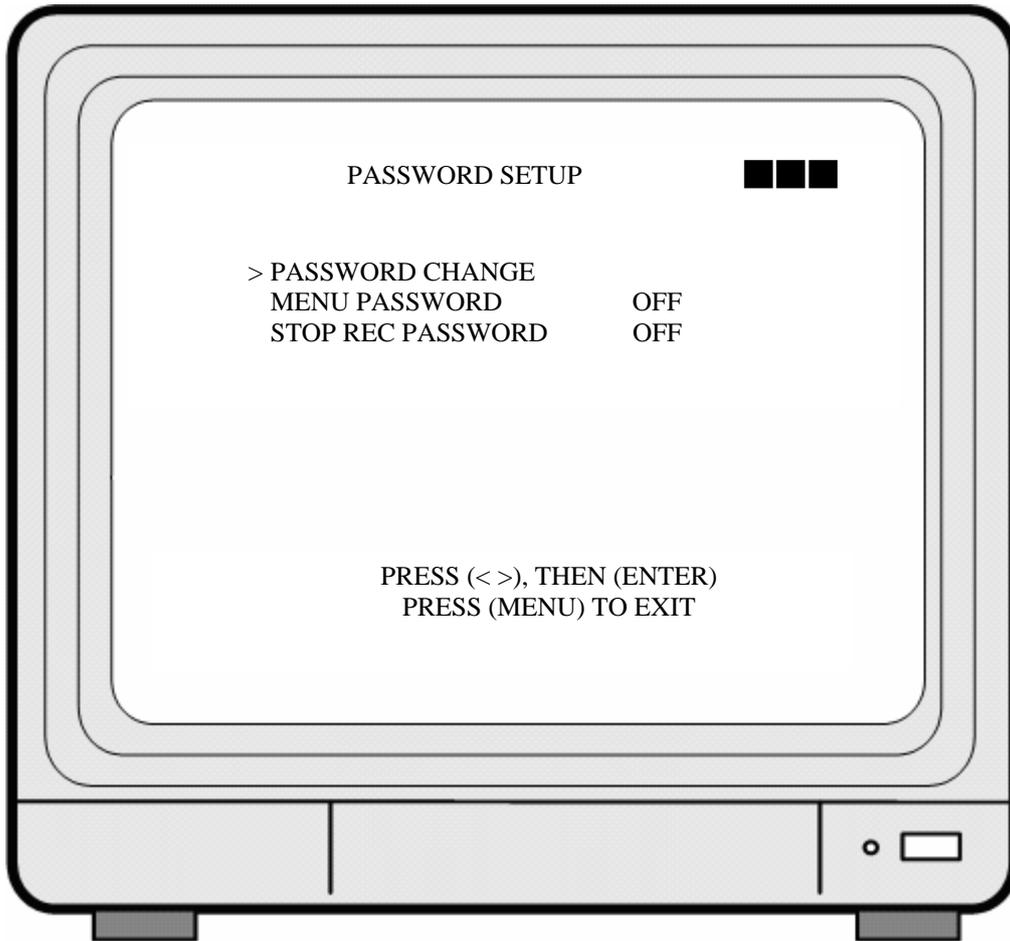
PASSWORD SETUP ■■■

> PASSWORD CHANGE
  MENU PASSWORD   OFF
  STOP REC PASSWORD   OFF

PRESS (< >), THEN (ENTER)
PRESS (MENU) TO EXIT

1. Cursor (>) position indicates the current function selected.

2. Use 《←》 and 《→》 button to move the cursor to the desired item .

3. Use 《ENTER》 button to make changes.

4. Use 《MENU》 button to exit "Password Setup".

5. When the password is setup to "ON", user will be requested to enter the correct password for entering from live display to menu selection (Default Password: 111111).

6. When password is setup to "ON", user will be requested to enter the correct password to stop recording (Default Password: 111111).

8.2.2.1 PASSWORD CHANGE

```
                                  ■ ■ ■ ■

        CURRENT PASSWORD    : _ _ _ _ _ _

        NEW      PASSWORD    : _ _ _ _ _ _

        CONFIRM PASSWORD    : _ _ _ _ _ _




                    PRESS (MENU) TO EXIT
```
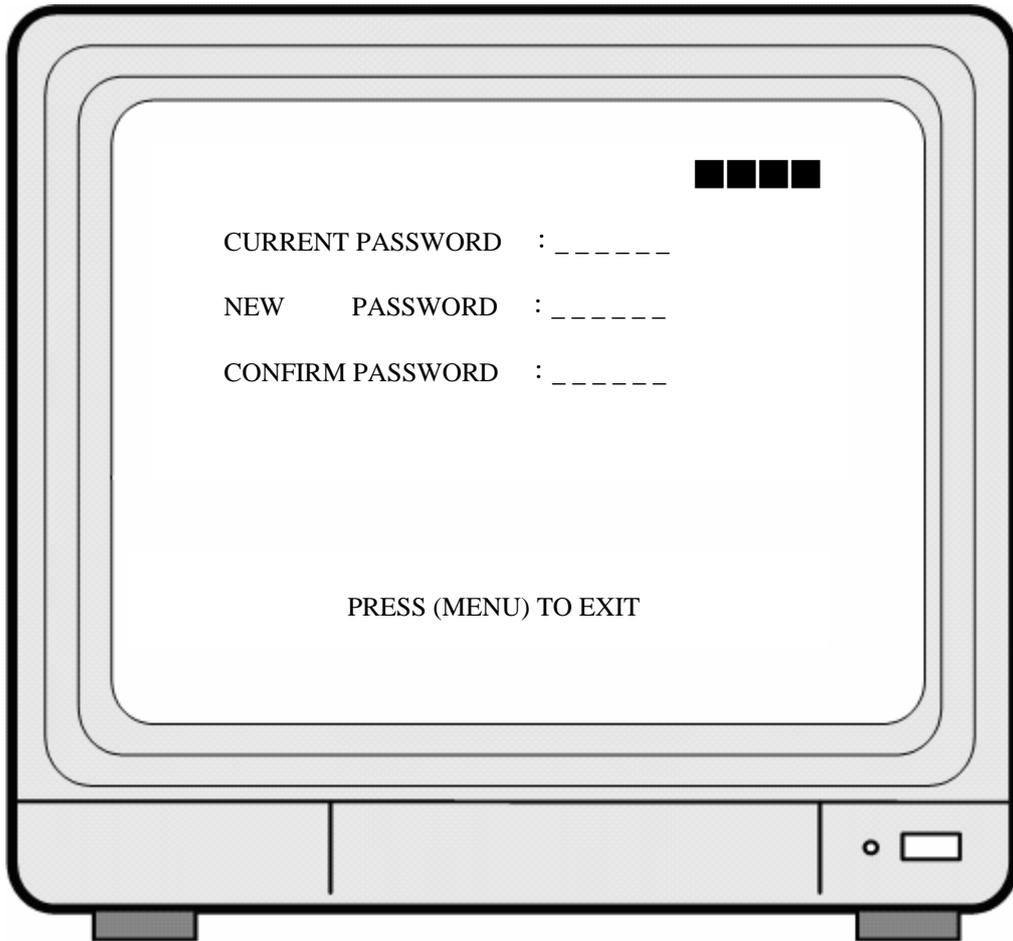
1. Press 《ENTER》button to show the display above.

2. Enter the current password (CURRENT PASSWORD).

3. Enter new password (NEW PASSWORD).

4. Confirm the new password (CONFIRM PASSWORD).

5. When password change is successful, the system will display "PASSWORD CHANGED".

※ Default Value: 111111

If password entered is incorrect, you will receive a message "NO PASSWORD CHANGED" to inform you (message flashes three times) and the system returns to "Password setup" selection.

8.2.3 LOAD DEFAULT

PRESS (ENTER) TO RESET

PRESS (MENU) TO EXIT
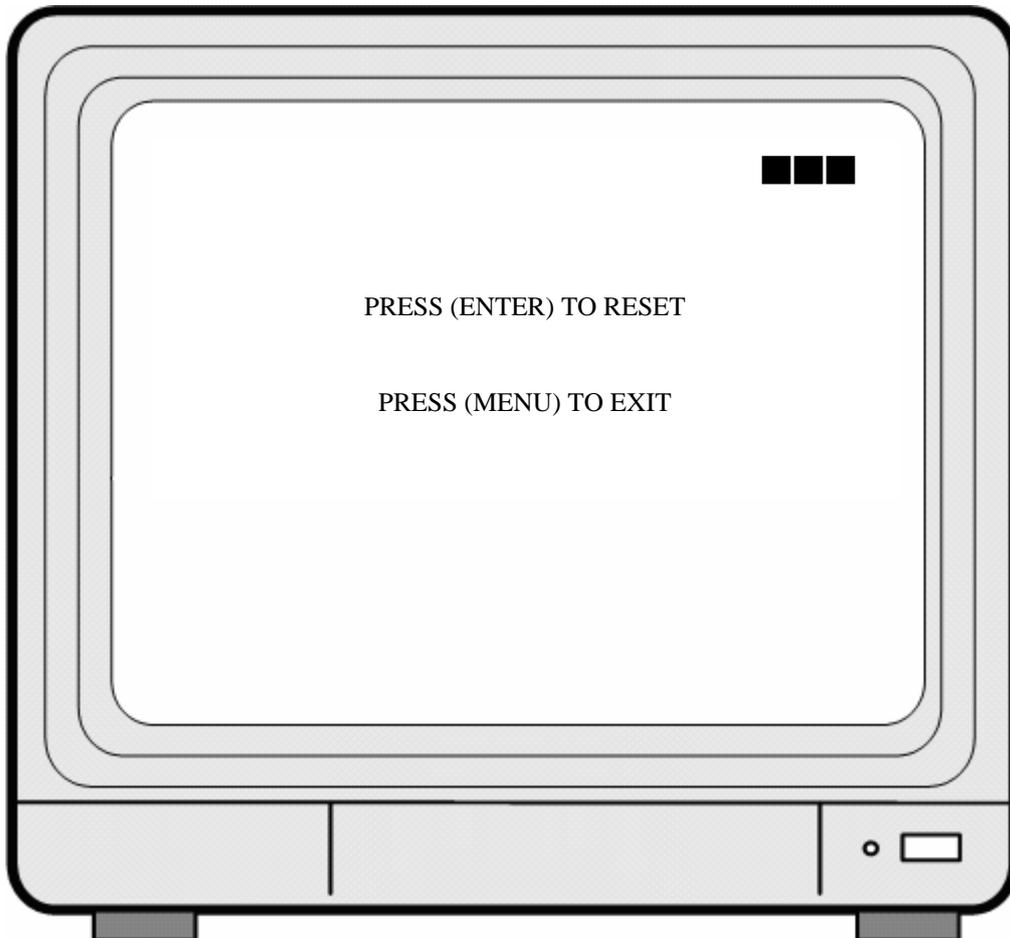
1. Press《ENTER》button to show the display above.
2. Press《ENTER》button the message《ALL SETTING DATA IS INITIALIZED》 will be displayed by flashing 3 times, and returns to default value. When reset procedure has been completed, the message "DVR RESET COMPLETED TURN OFF AND ON THE DVR" will be displayed, please restart the DVR.
3. Press《MENU》button to exit "Load Default Setup" selection.

8.3 Camera Setup
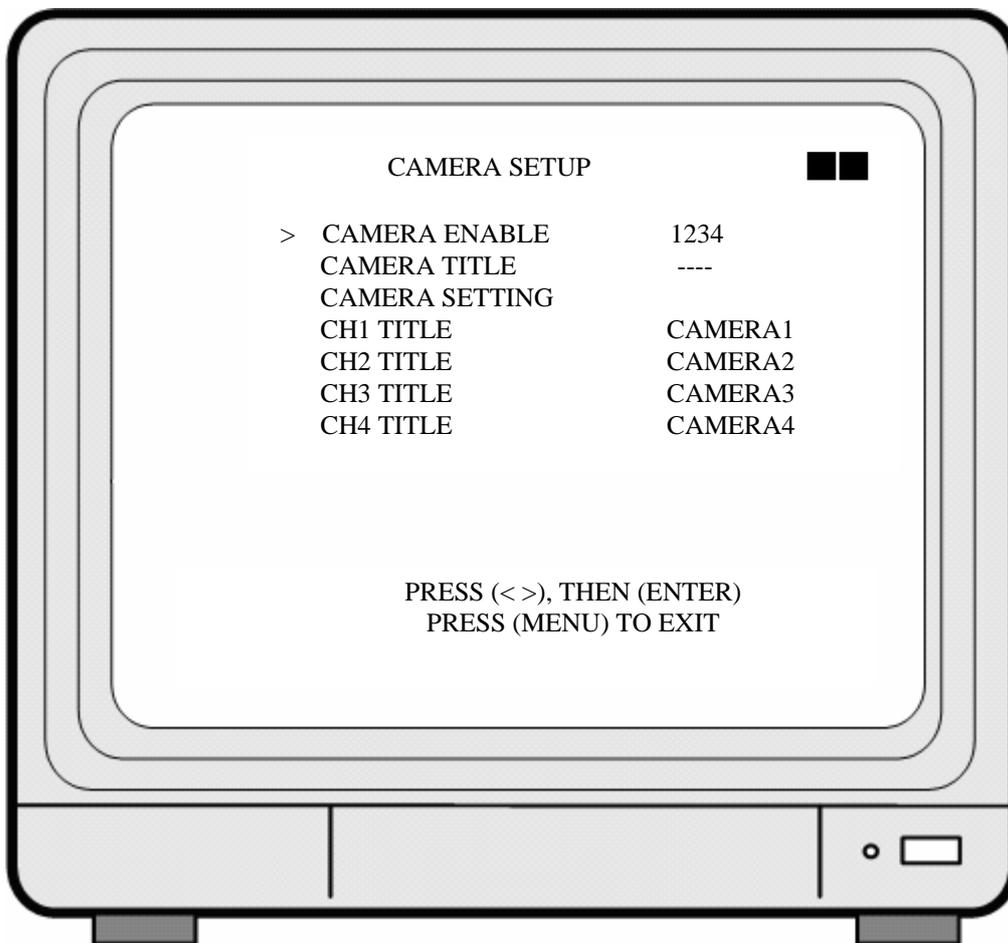
```
                    CAMERA SETUP              ■■

        >   CAMERA ENABLE          1234
            CAMERA TITLE           ----
            CAMERA SETTING
            CH1 TITLE              CAMERA1
            CH2 TITLE              CAMERA2
            CH3 TITLE              CAMERA3
            CH4 TITLE              CAMERA4




            PRESS (< >), THEN (ENTER)
            PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Press 《←》 and 《→》 button to move the cursor.

3. Press 《ENTER》 button to proceed.

4. Press 《MENU》 button to exit.

5. "Camera Setup" is situated on the second menu layer. Under this menu layer user may setup camera name (camera name for CH1, CH2, CH3 and CH4), standard camera setup, etc.

6. Press《ENTER》button to change the camera view combination (select to view the desired channel).

 (It consists of 16 different optional camera view combinations)

 1) Select (- - - -), all cameras are disabled (no image display).

 2) Select (1 2 3 4), all cameras are operational (quad image display).

 3) Select (- - - 4), only camera four is operational (CH4 image display only).

 7. When proceeding "CH1 TITLE", press《ENTER》button to show the display

---

below:

<center>

V

CH1   TITLE   CAMERA1

12345678
</center>

"V" indicates the position of the cursor. Press《←》and《→》button to move the
cursor, and press《ENTER》button to change the title (maximum 8 characters).

8. All channel titles are setup the same way.

Once the user formats the hard disk drive, the camera title returns to its default
setting (CAMERA1/ CAMERA2/ CAMERA3/ CAMERA4). It is because this
setup is stored in the hard disk drive.

8.3.1 CAMERA SETTING
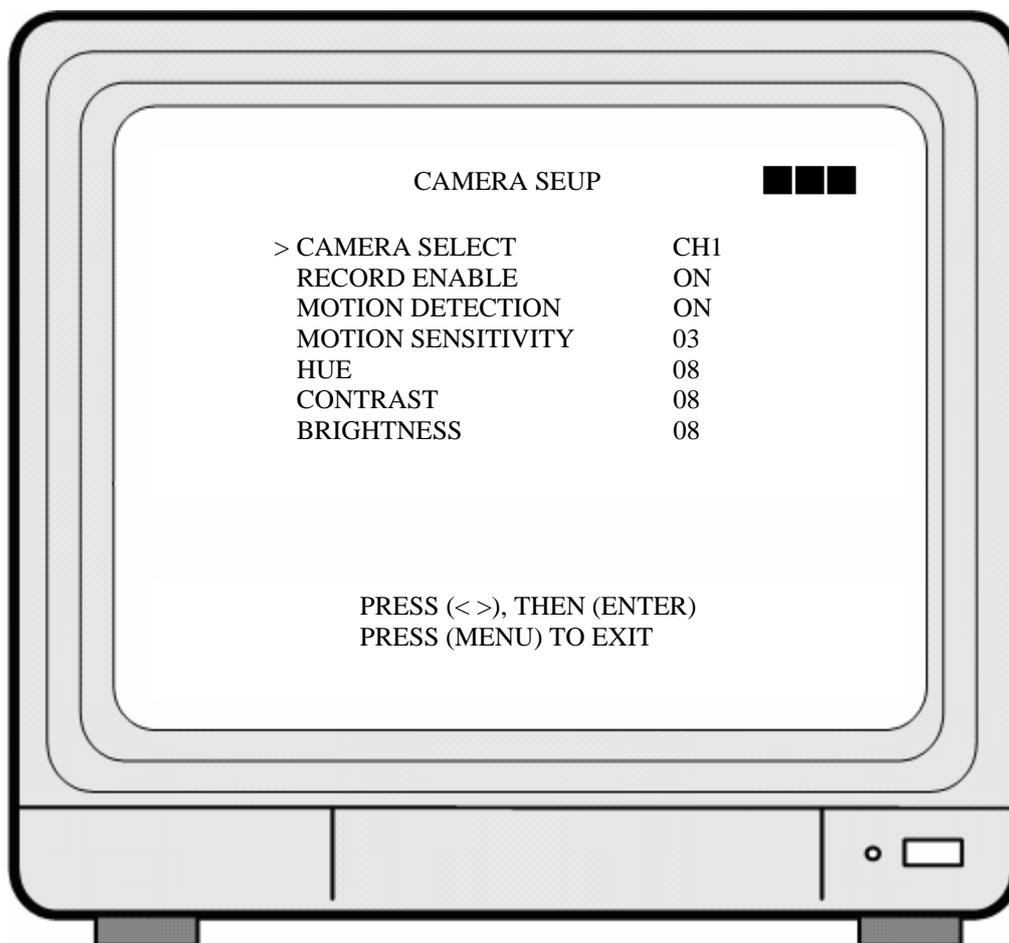
```
              CAMERA SEUP            ■■■

    > CAMERA SELECT           CH1
      RECORD ENABLE           ON
      MOTION DETECTION        ON
      MOTION SENSITIVITY      03
      HUE                     08
      CONTRAST                08
      BRIGHTNESS              08




      PRESS (< >), THEN (ENTER)
      PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Press 《←》 and 《→》 button to move the cursor to the desired item.

3. Press 《ENTER》 button to make changes.

4. Press 《MENU》 button to exit "CAMERA SETUP" selection.

5. CAMERA SELECT: Press 《ENTER》 button to select the desired channel.

6. RECORD ENABLE: Press 《ENTER》 button to switch the channel recording ON/ OFF.

7. MOTION DETECTION: Press 《ENTER》 button to switch the motion detection function ON/ OFF.

8. MOTION SENSITIVITY: Press《ENTER》button to setup the motion sensitivity rate (5 sensitivity rate values, 01 most sensitive).

9. HUE: Press《ENTER》button to adjust the color of cameras (15 color adjustment values, default value: 08).

10. CONTRAST: Press《ENTER》button to adjust the camera contrast (15 contrast adjustment values, default value: 08).

11. BRIGHTNESS: Press 《ENTER》 button to adjust camera brightness (15 color adjustment values, default value: 08).

8.4 Record Setup
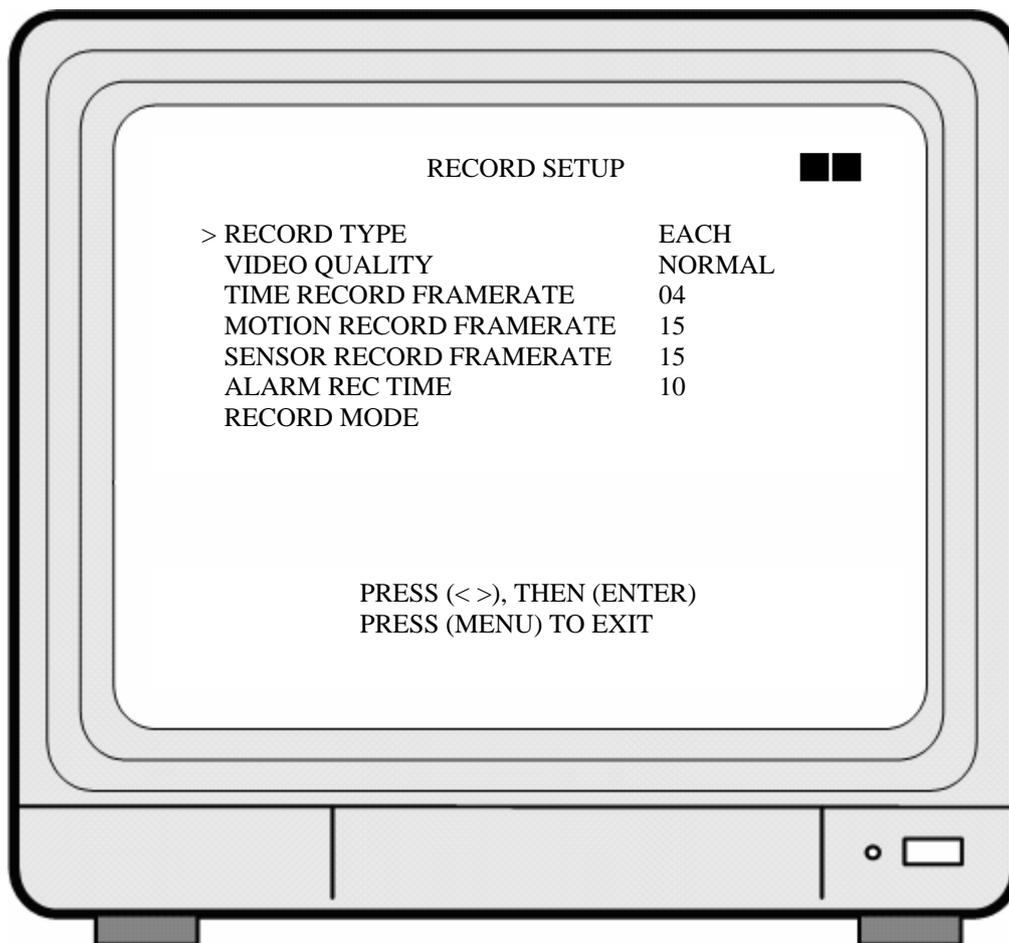
```
                    RECORD SETUP              ■ ■

     > RECORD TYPE                    EACH
       VIDEO QUALITY                  NORMAL
       TIME RECORD FRAMERATE          04
       MOTION RECORD FRAMERATE        15
       SENSOR RECORD FRAMERATE        15
       ALARM REC TIME                 10
       RECORD MODE




              PRESS (< >), THEN (ENTER)
              PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Use 《←》and 《→》button to move the cursor to the desired item.

3. Use 《ENTER》button to make changes.

4. Use 《MENU》button to exit "RECORD SETUP" selection.

5. "Record Setup" is situated on the second menu layer. Under this selection user may setup the following function: Record Type, Video Quality, Time Record Framerate, Motion Record Framerate, Sensor Record Framerate, Alarm Record Time, and Record Mode.

6. RECORD TYPE: Press 《ENTER》button to select between "QUAD" and "EACH" mode.

7. VIDEO QUALITY: Press 《ENTER》button to select different quality recordings (HIGH, NORMAL or LOW).

8. TIME RECORD FRAMERATE: Press 《ENTER》button to setup the recording speed when "T" mode is setup under schedule record mode.

9. MOTION RECORD FRAMERATE: Press 《ENTER》button to setup

different recording speeds per channel, suitable when the recording speed under schedule record mode is setup to "M" (mix) or "A" (alarm).

10. SENSOR RECORD FRAMERATE: Press《ENTER》button to setup different recording speed, when a sensor device has been triggered (this setup is only active when the recording speed under schedule record mode is setup to "M"(Mix) or "A" (Alarm)).

<div style="text-align:center">

NTSC:30,15,10,7,5,4,3,2,1fps.

PAL :25,12,8,6,4,3,2,1fps.

</div>

11. ALARM REC TIME: Press《ENTER》button to setup sensor recording time after a sensor device has been triggered (this setup functions is only active when the recording speed under schedule record mode is setup to "A"(Alarm)).

8.4.1 RECORD MODE

```
                    RECORD MODE
              T: TIME    A: MOTION+SENSOR
               M: TIME+MOTION+SENSOR
     V
  < M A T T T T T T T T T T T T T T T T T T T T T－T >
    0     3     6     9    12    15    18    21    24




           PRESS (< >), THEN (ENTER)
           PRESS (MENU) TO EXIT
```

1. Cursor (V) position indicates the current function selected.

2. Use 《←》 and 《→》 button to move the cursor to the desired item (time).

3. Use 《ENTER》 button to make changes.

4. Use 《MENU》 button to exit "SECHDULE RECORD MODE" selection.

5. T: Time, indicates continuous record.

6. M: TIME+MOTION+SENSOR.

   (1) When motion has been detected, it will be recorded by "Motion Record Speed".

   (2) When sensor has been triggered, it will be recorded by "Sensor Record Speed".

   (3) Otherwise, it is recorded by "Time Record Speed".

7. A: MOTION+SENSOR

   (1) When motion has been detected, it will be recorded by "Motion Record Speed".

   (2) When sensor has been triggered, it will be recorded by "Sensor Record Speed".

※ When both "MOTION" and "SENSOR" has been triggered, it will be recorded by "Motion Record Speed".

8.5 Buzzer Setup
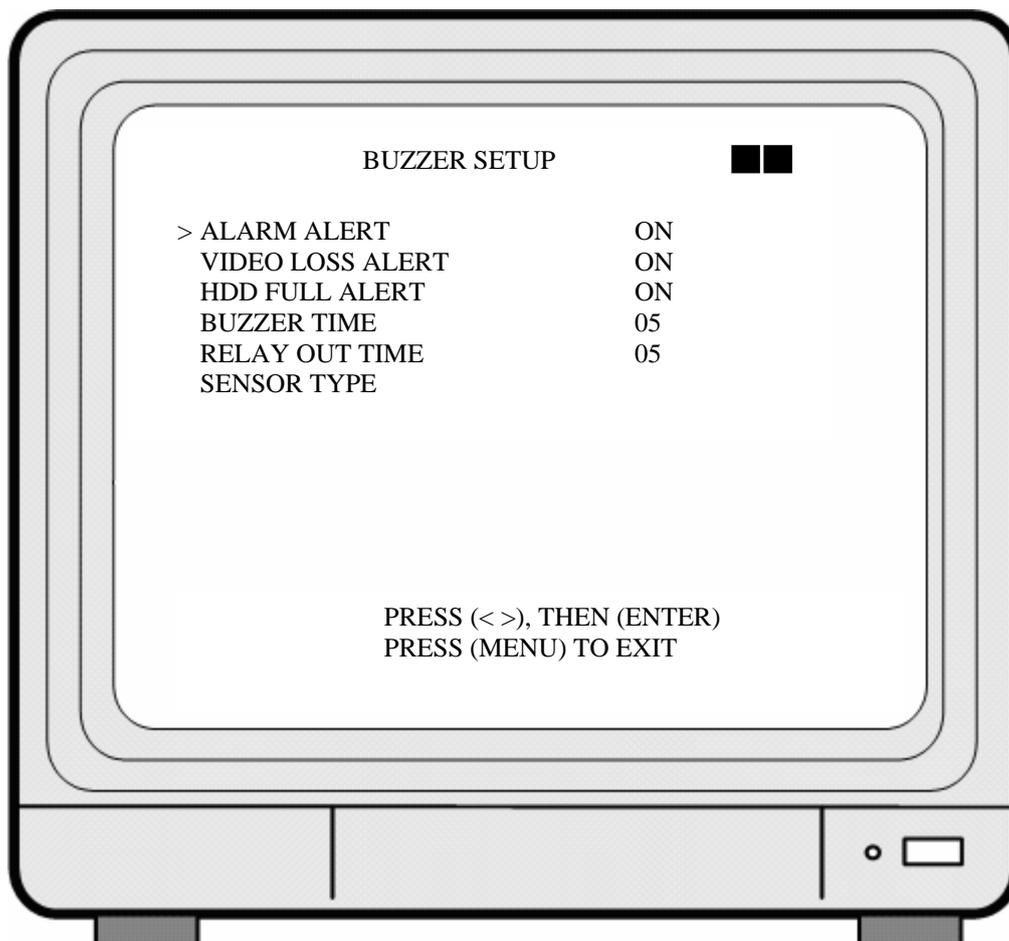
```
                    BUZZER SETUP            ■■

        > ALARM ALERT              ON
          VIDEO LOSS ALERT         ON
          HDD FULL ALERT           ON
          BUZZER TIME              05
          RELAY OUT TIME           05
          SENSOR TYPE




                PRESS (< >), THEN (ENTER)
                PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current selected position.

2. Press 《←》and 《→》button to move the cursor to the desired item (time).

3. Press 《ENTER》button to proceed.

4. Press 《MENU》button to exit "BUZZER SETUP" selection.

5. "BUZZER SETUP" is situated on the second menu layer. Under this menu layer user may setup "ALARM ALERT", " VIDEO LOSS ALERT", " HDD FULL ALERT", " BUZZER TIME", " RELAY OUT TIME", and " SENSOR TYPE".

6. ALARM ALERT: Press 《ENTER》button to setup "ON" or "OFF", whether to trigger the alarm when motion event has been detected (this setup is only active when the system is under record status and schedule record is setup to "M"(Mix) or "A" (Alarm)).

7. VIDEO LOSS ALERT: Press《ENTER》button to setup "ON" or "OFF", whether to trigger the alarm when video loss has been detected (this setup is only active when the system is under record or live status).

8. HDD FULL ALERT: Press 《ENTER》button to setup "ON" or "OFF", whether

to trigger the alarm when hard disk is full (this setup is only active when the system is under record status).

9. BUZZER TIME: Press《ENTER》button to setup the buzzer time to continuous (CONT), and press any button to release this setup.

10. RELAY OUT TIME: Press《ENTER》button to setup the relay out time to continuous (CONT), and press any button to release this setup.

8.5.1 SENSOR TYPE:
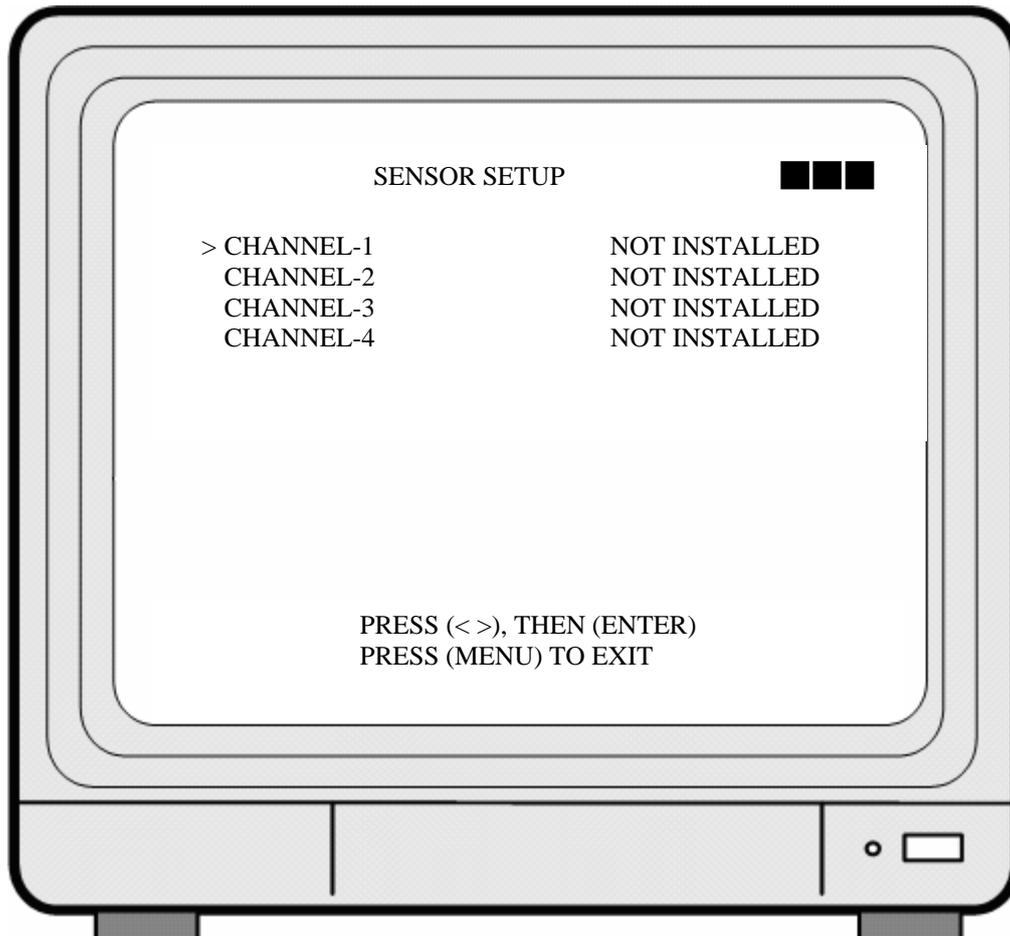
```
              SENSOR SETUP              ■ ■ ■

      > CHANNEL-1              NOT INSTALLED
        CHANNEL-2              NOT INSTALLED
        CHANNEL-3              NOT INSTALLED
        CHANNEL-4              NOT INSTALLED








              PRESS (< >), THEN (ENTER)
              PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current selected position.

2. Press《←》and《→》button to move the cursor to the desired item (CH1~CH4).

3. Press《ENTER》button to make changes.

4. Press《MENU》button to exit "SENSOR SETUP" selection.

5. CHANNEL-1: Press《ENTER》button to setup "NO" (Normal Open) or "NC" (Normal Close).

6. CHANNEL-2 ~ CHANNEL-4: Please follow the setup shown above (CHANNEL-1).

8.6 Event List
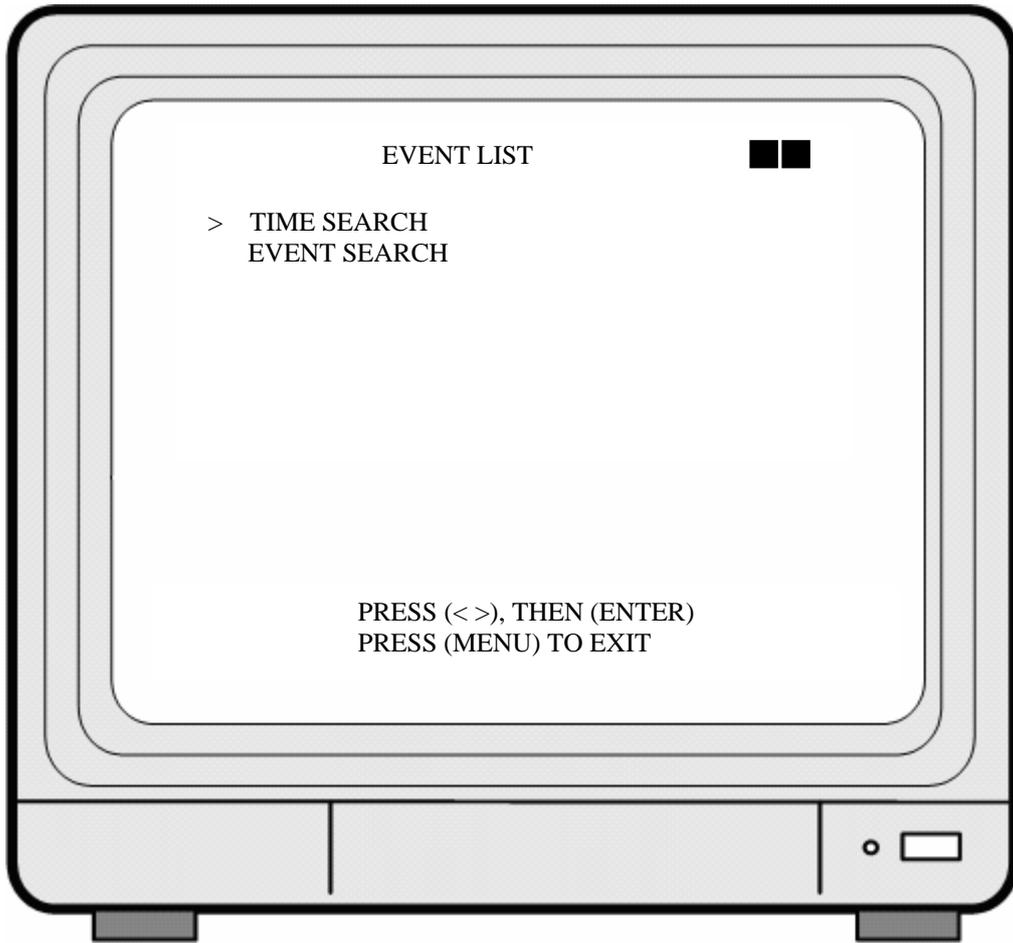
```
                    EVENT LIST          ■■

    >   TIME SEARCH
        EVENT SEARCH












            PRESS (< >), THEN (ENTER)
            PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Press 《←》 and 《→》 button to move the cursor to the desired item.

3. Press 《ENTER》 button to proceed.

4. Press 《MENU》 button to exit "EVENT LIST" selection.

5. "EVENT LIST" is situated on the second menu layer. Under this menu layer user may setup "TIME SERACH" or "EVENT SEARCH".

8.6.1 TIME SEARCH

TIME SEARCH ■■■

05/01/13 19：27：16

BEGIN TIME：   05/01/13 19：27：16
END TIME：   05/01/15 15：00：06

PRESS (< >), THEN (ENTER)
PRESS (MENU) TO EXIT
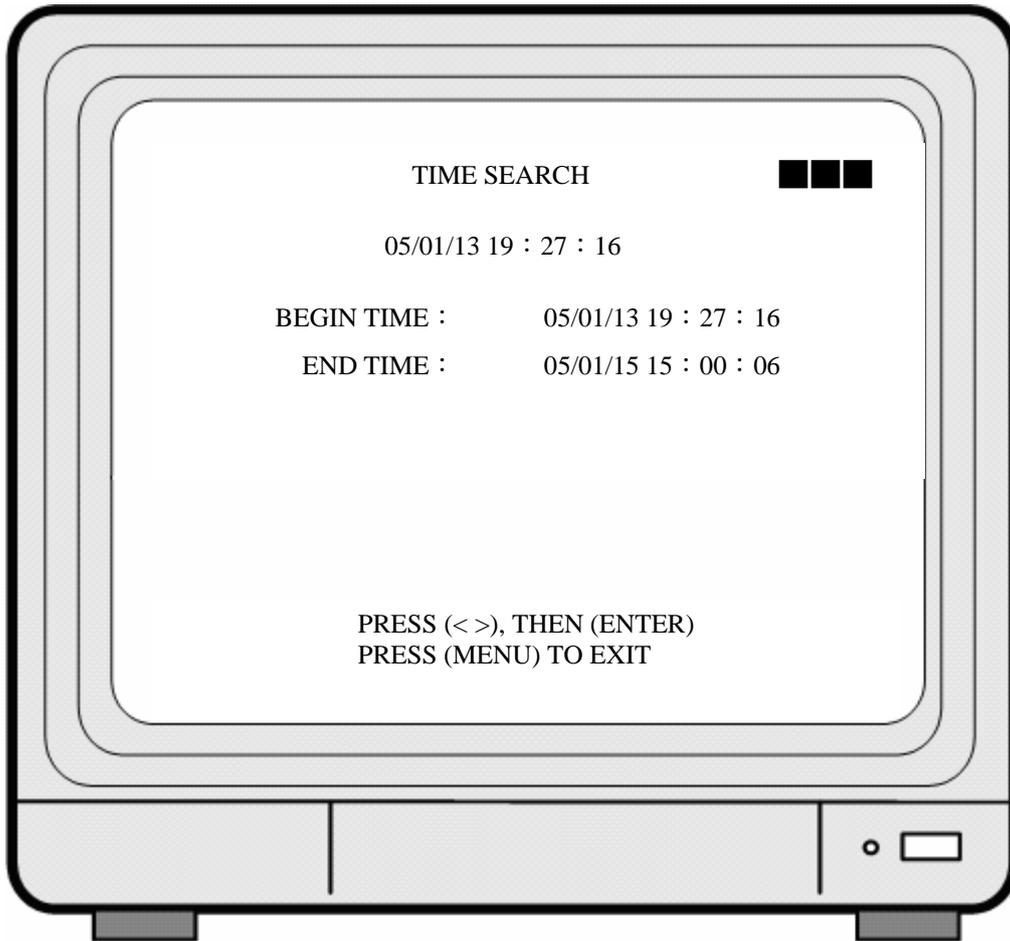
1. TIME SEARCH: Displays system recording time (begin and end).
2. Press 《←》 and 《→》 button to select the desired time and date.
3. Press 《ENTER》 button to setup playback starting time and date.
4. Press 《MENU》 button to exit "TIME SEARCH" selection.
5. Press 《PLAY》 button to play.

8.6.2 EVENT SEARCH

```
                    EVENT SEARCH          ■ ■ ■

       BEGIN：                   END：
       05/01/15 15：00：01        05/01/15 15：00：06

       > 01 ALARM               2005/01/15 15：00：01
         02 MIX                 2005/01/15 14：00：01
         03 TIME                2005/01/15 13：00：01
         04 ALARM               2005/01/15 12：00：01




              PRESS (< >), THEN (ENTER)
              PRESS (MENU) TO EXIT
```

1. EVENT SEARCH: Displays all recording events, every page consists of 7 events, and maximum 63 stored events.

2. Press 《←》 and 《→》 button to select the desired event to playback.

3. Press 《MENU》 button to exit "EVENT SEARCH" selection.

4. Press 《PLAY》 button to play.

※ BEGIN：   END：
    05/01/15 15：00：01   05/01/15 15：00：06

Displays the beginning and end time of each event.

8.7 CF Card Setup

```
                        CF CARD SETUP              ■■

    >   COPY
        FORMAT/ERASE

        TOTAL CAPACITY                  512MB

        REMAINING CAPACITY              100MB




              PRESS (< >), THEN (ENTER)
              PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Press 《←》 and 《→》 button to select the desired item.

3. Press 《ENTER》 button to proceed.

4. Press 《MENU》 button to exit "CF CARD SETUP" selection.

5. "CF CARD SETUP" is situated on the second menu layer. Under this menu layer user may setup to "COPY" or "FORMAT/ ERASE".

6. TOTAL CAPACITY: CF Card total capacity (MB per unit).

7. REMAINING CAPACITY: CF Card remaining capacity (MB per unit).

8. When remaining capacity equals zero, indicates that there's no storage space available. Please format the CF Card (FORMAT/ ERASE).

※ Note! When the screen displays "NO CF CARD EXIST", indicates that the system can not detect the CF-card.

※ Note! Format the CF card (FORMAT/ ERASE) before first time use.

※ Please do not use the format (FORMAT) function supplied by the personal computer, data may be lost due to such action.

8.7.1 SELECT TIME

```
                    SELECT TIME              ■ ■ ■

        > DAY                    05/01/15

          BEGIN TIME             15：00：01

          END TIME               15：00：06

          COPY




              PRESS (< >), THEN (ENTER)
              PRESS (MENU) TO EXIT
```
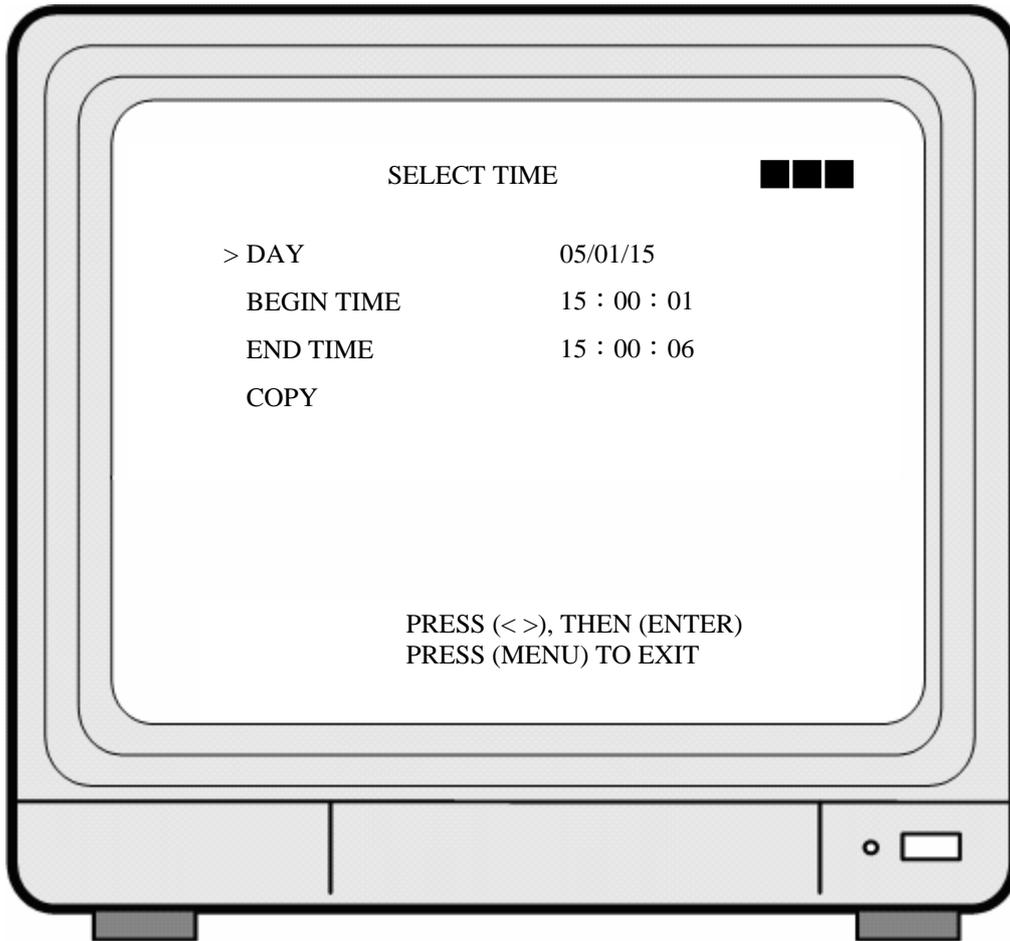
1. SELECT TIME: Displays the newest event date, begin and end time.

2. Press 《←》and 《→》button to select the desired item.

3. Press 《ENTER》button to setup the desired date and time to proceed copy
   (COPY) function.

4. Press 《MENU》button to exit "SELECT TIME" selection.

※ When the message "CF CARD FULL" is displayed on the screen, indicates
   that storage capacity （CF Card） is empty. Please format (FORMAT/
   ERASE) to proceed.

※ When the message "Time Input Error" is displayed on the screen, indicates
   that the time date entered is incorrect or no data. The system auto returns to
   CF Card setup selection.

8.7.1.1 COPY

```
                                              ■ ■ ■ ■

          (1)   SELECT DATA：10MB
          (2)   ESTIMATED TIME：2 Minute
          (3)   START COPY
          (4)   CAPACITY IS NOT ENOUGH
          (5)   10% COPIED

          (6)   PRESS (ENTER) TO COPY
          (7)   PRESS (MENU) TO EXIT
```
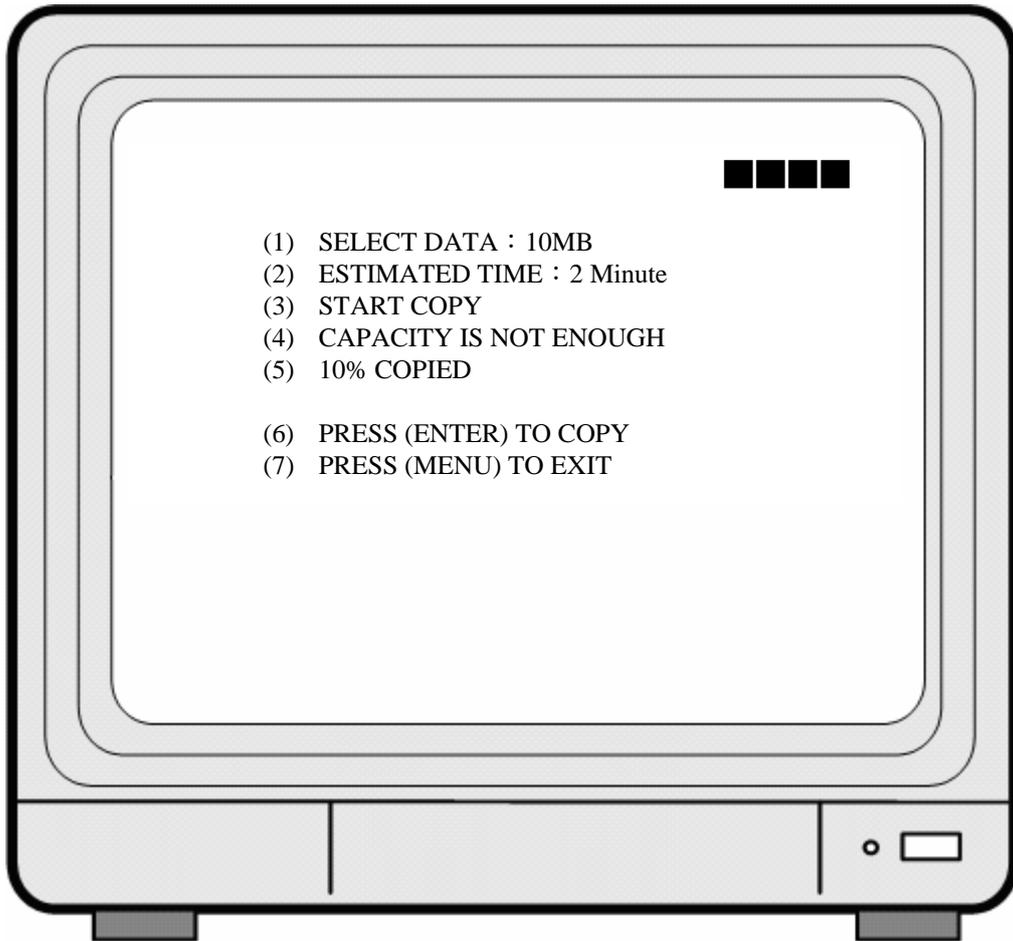
（1）Data capacity.

（2）Estimated time to complete data copy.

（3）Request to confirm copy.

（4）When the data capacity is greater than the remaining storage capacity, the
message "CAPACITY IS NOT ENOUGH" will be displayed.

（5）Data copy percentage completed.

（6）Press《ENTER》button to start copy.

（7）Press《MENU》button to exit "Copy Display".

![speco technologies]

8.7.2 FORMAT/ ERASE

PASSWORD INPUT （6） ：------
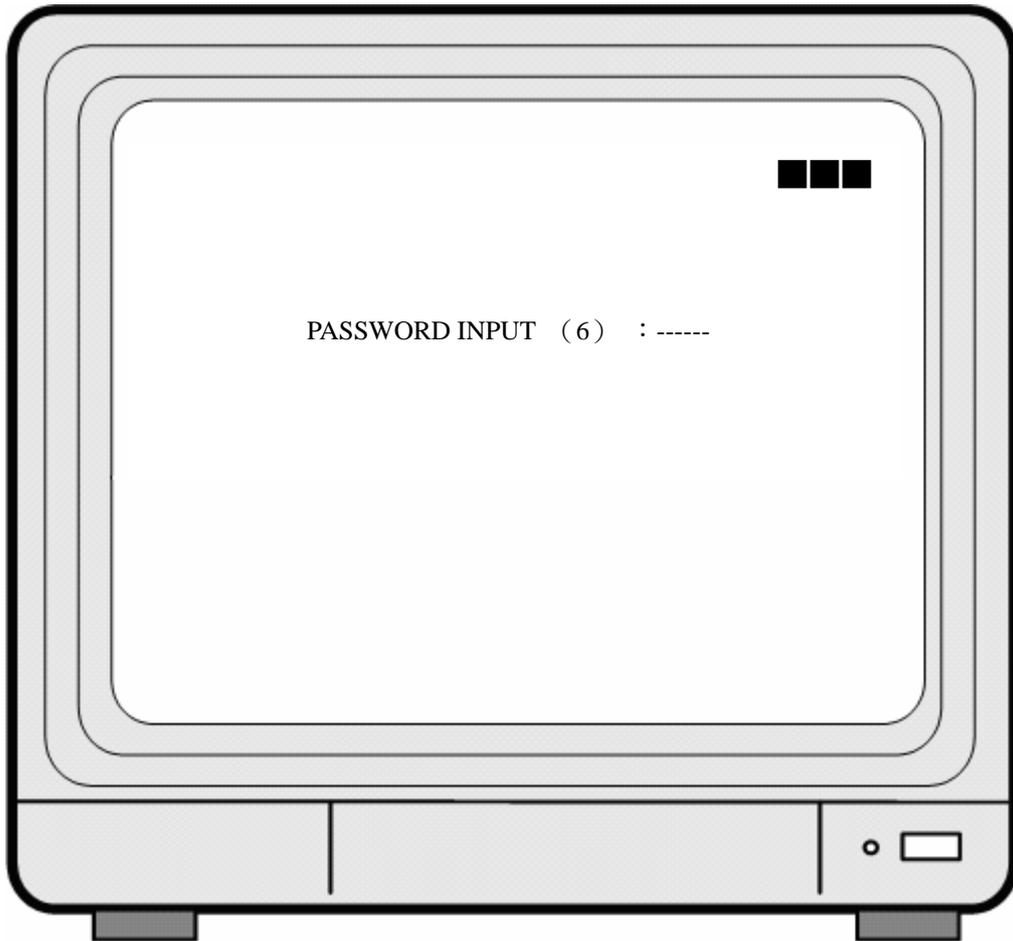
1. When proceeding "FORMAT/ ERASE" function, the above display will be shown.
2. When password entered is correct, the screen will display the message "PASSWORD CORRECT", "CF CARD FORMATED" (flashes 3 times), indicates CF Card format is successful.
3. When password entered is incorrect, the screen will display "PASSWORD INCORRECT" (flashes 3 times), and returns to "CF CARD SETUP" selection.

※ This password equals to hard disk format password.

8.8 Hard Drive Setup
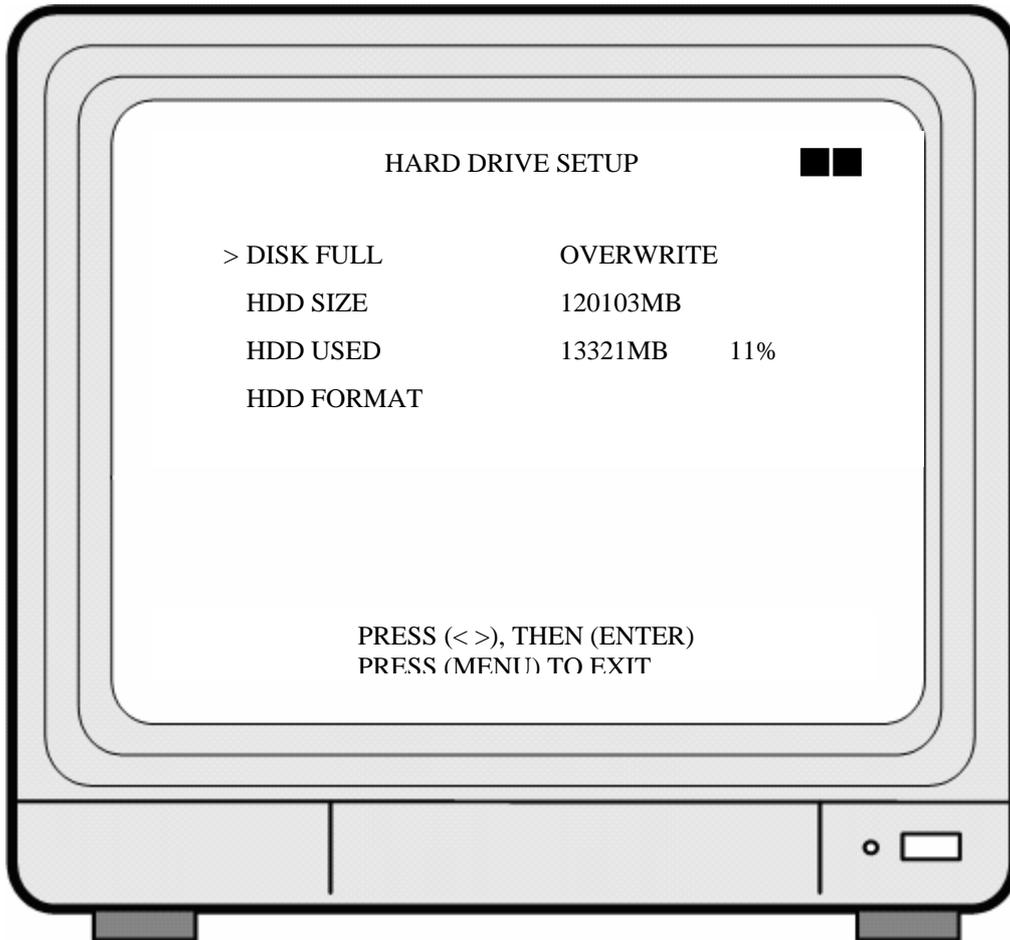
```
                    HARD DRIVE SETUP          ■ ■

        > DISK FULL              OVERWRITE
          HDD SIZE              120103MB
          HDD USED             13321MB      11%
          HDD FORMAT




          PRESS (< >), THEN (ENTER)
          PRESS (MENU) TO EXIT
```

1. Cursor (>) position indicates the current function selected.

2. Press 《←》 and 《→》 button to select the desired item.

3. Press 《ENTER》 button to make changes or to proceed.

4. Press 《MENU》 button to exit "HARD DRIVE SETUP" selection.

5. "HARD DRIVE SETUP" is situated on the second menu layer. Under this menu layer user may setup to overwrite or format the hard disk.

6. DISK FULL: Press 《ENTER》 button to setup "ON" or "OFF", whether to overwrite or stop recording when the hard disk is full.

7. HDD SIZE: Displays hard disk capacity.

8. HDD USED: Displays the capacity already used.

8.8.1 HDD FORMAT:

PASSWORD INPUT　（6）　：------
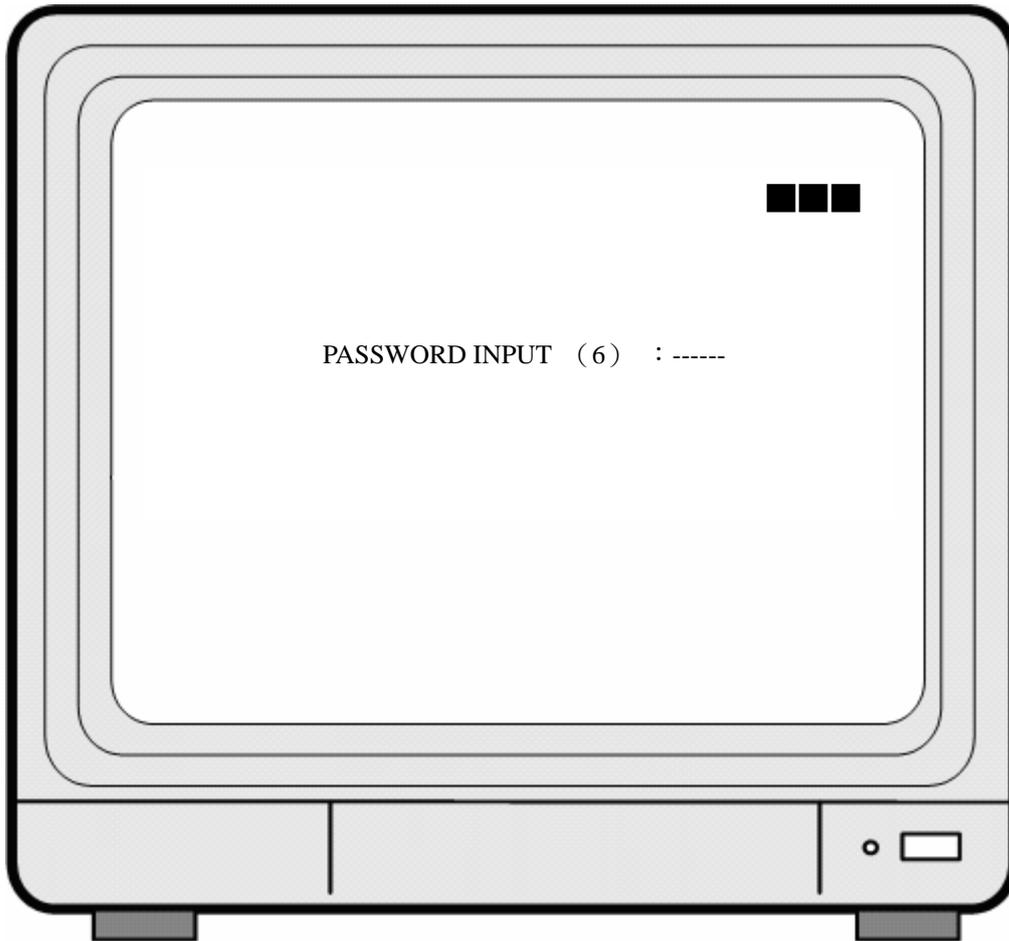
1. When proceeding "HDD FORMAT" function, the above display will be shown.
2. When password entered is correct, the screen will display the message "HDD FORMATTED" (flashes 3 times), indicates hard disk format is successful.
3. When password entered is incorrect, the screen will display "PASSWORD INCORRECT" (flashes 3 times), and returns to "HARD DRIVE SETUP" selection.

9. NETWORK OPERATION

9.1 Network DVR Setup

Before installing the Network DVR, you need to first setup an IP Address, connect it to the ADSL Modem or LAN Hub, and use IPEdit.exe to test the DVR.

Note: Before using PPPoE and DDNS connection method, one must first setup an IP Address (using IPEDIT.exe).

9.1.1 Online with DHCP Server

Use IPEDIT.exe to find the installed Network DVR. Select this Network DVR in the Camera List Window. The default configuration will be shown on the right window. Update the IP status.
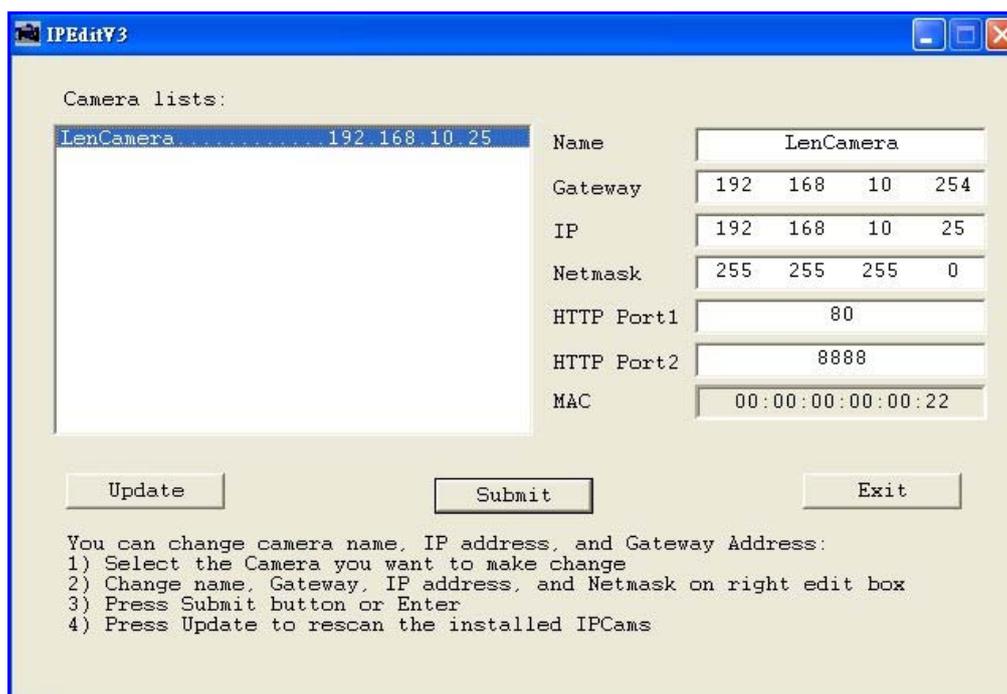
Online with DHCP Server

9.1.2 Online without DHCP Server

1. Use IPEdit.exe to find the installed Network DVR.

2. The Internet DVR without IP allocated by DHCP will have a default IP Address of 169.254.1.13.

3. Select this Internet DVR on Camera List Window.

4. The default configuration will be shown on the right window.

5. Under DOS mode enter "IPCONFIG" to access Gateway, IP, and Netmask setting values.
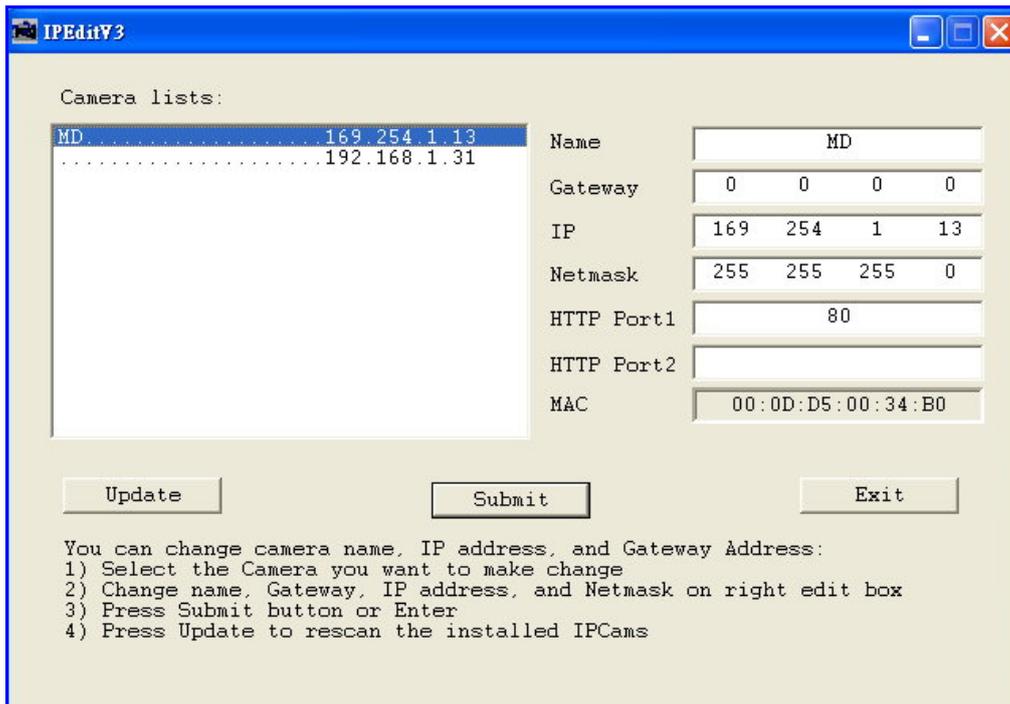
Online without DHCP Server

After the "Submit" button is clicked, the IP information of this Network DVR will be updated.

9.2 Connecting Network DVR

3 methods for connecting Network DVR:

1. Online using Intranet or Fixed IP

2. Online using ADSL (PPPoE) Router

3. Online using DDNS Server

9.2.1 Online using Intranet or Fixed IP

Setup similar to "9.1 Network DVR Setup" .

9.2.2 Online using ADSL (PPPoE) Router

Setup similar to "9.4.3.3 Connect to ADSL by PPPoE mode".

9.2.3 Online using DDNS Server

The DDNS service provides the dynamic IP to users to gain access to resources connected to the Internet via a cable or DSL connection. Once you've decided to apply this function, please register your domain name at http://www.dyndns.org (this website supports register free service). Paid DDNS service is applied to long-term users. For more information, please refer to "9.4.4 DDNS Setup".

9.2.4 Online Connection

Start Internet Explorer, enter the IP Address of the Network DVR into the Address field, such as 192.168.1.31 or click twice on IPEdit.

Before connection, "User name" and "Password" will be requested:

Default User Name: **admin**

Default Password: **1234**

9.2.4.1 Install ActiveX

Before entering remote connection, please install ActiveX and check your browser setup by following the procedures below:

a. Open Internet Explorer under "Tools" and select "Internet Options".

Tools → Internet Options
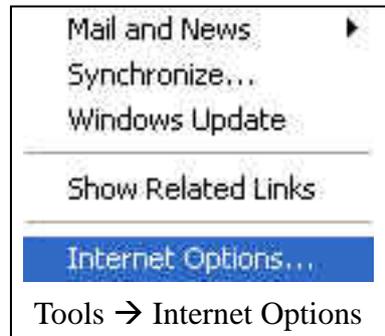
b. Select "Security", and then press "Custom Level".
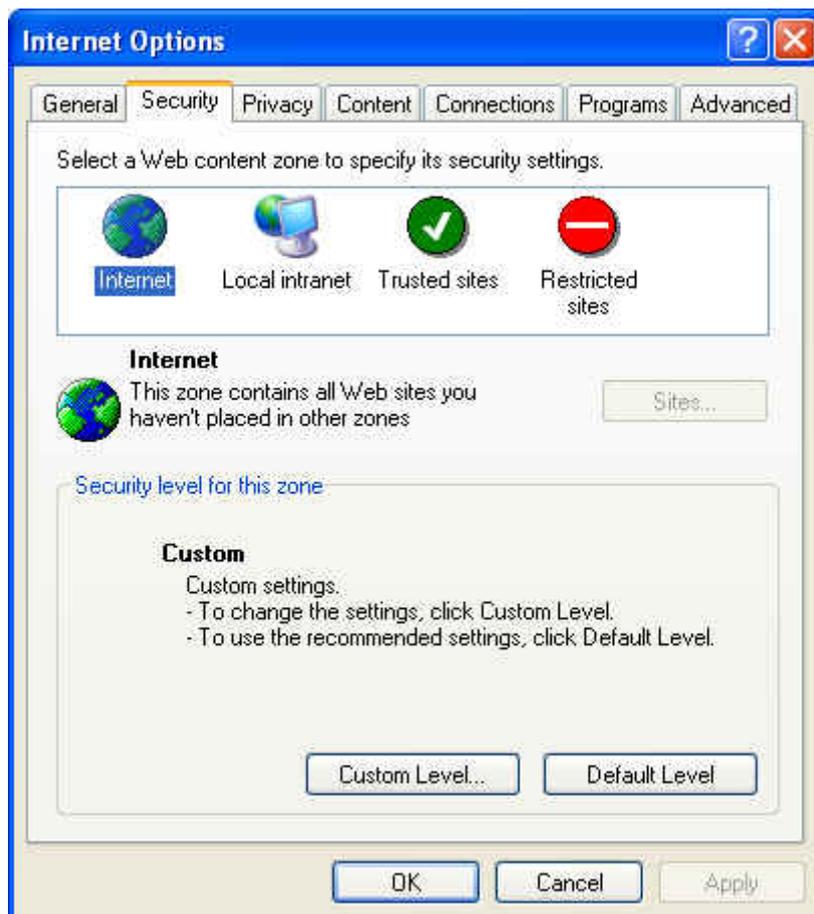
Security -> Custom Level

speco technologies
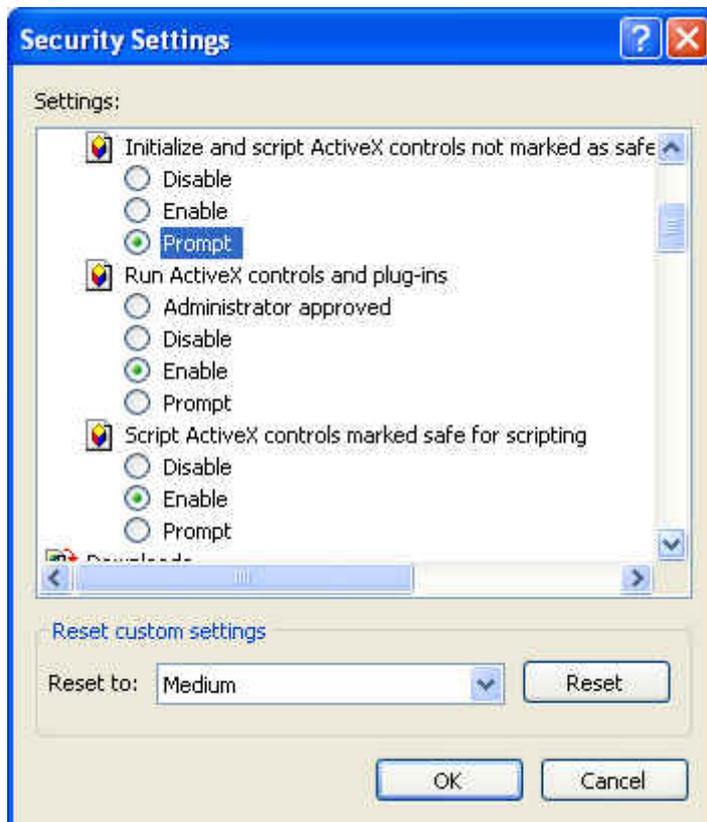
Start-up ActiveX Control

The graphic below will be shown when first time installing ActiveX Mode. Please, select "Yes" to accept installation.
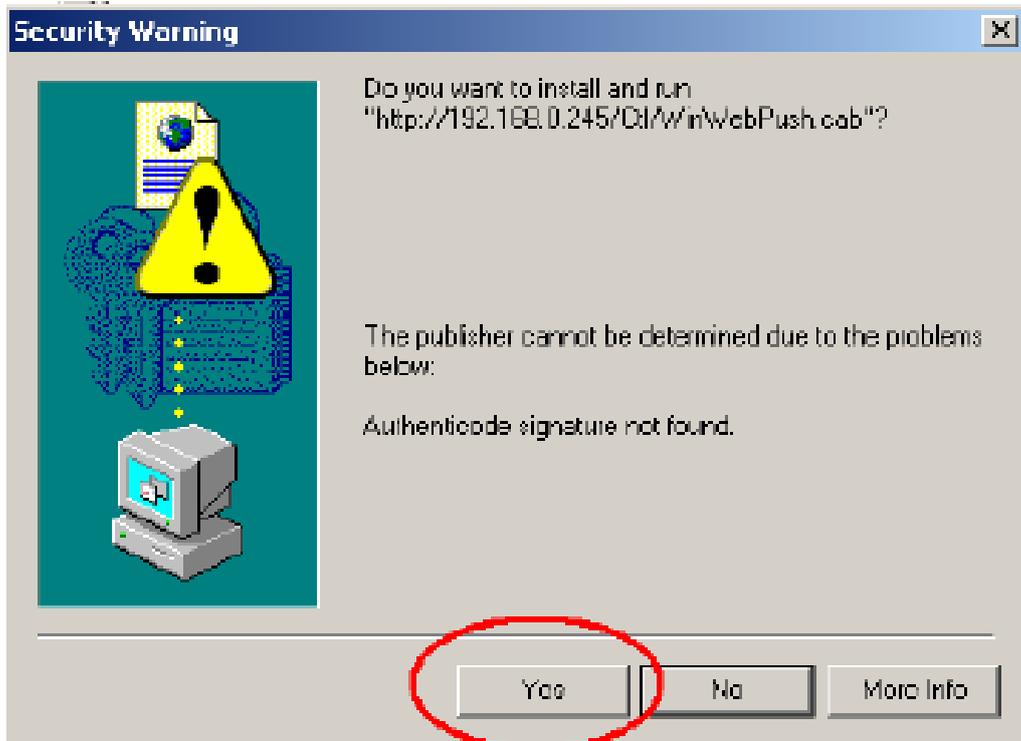
Download ActiveX Control

Live view will be displayed when installation is successful.

9.3 Main Display

Remote control DVR - Main Menu

①Live Display

②DVR Control Button

③Video Setup

④Configuration: Enter detail setup

    Recording: Displays recording setup menu (for video recording).

   Snapshot: Pop-up window displays live images, right mouse click to save.

Note! To view complete interface, PC resolution must be adjusted to 1024*768.

9.3.1 Live Display

- View/ Make changes on image display
- Rotate/ Make changes on image direction
- Image Recording/ Record function setup
- Save Current Picture/ Save the current image
- Welcome! Administrator/ Display current user name
- About/ Version description

Move the cursor inside the image range, right mouse click to display 9 function selections:
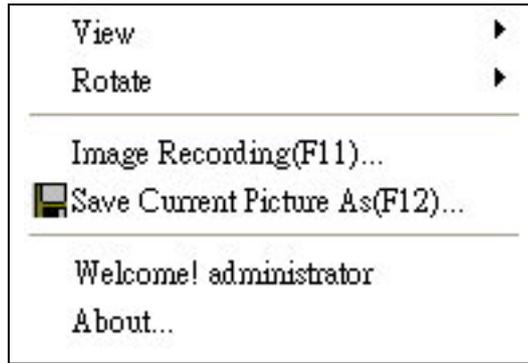
9.3.2 View

Two types of display method:

a.Resizable: Adjustable image size.

b.Actual size: The actual image size.

9.3.3 Rotate

Four types of rotate settings:

a.Rotate 0: Default state

b.Rotate 180: Rotate the image by 180 degrees.

c.Flip horizontal: Image flips horizontally

d.Flip vertical: Image flips vertically

9.3.4 Image Recording
Image Recording Setup Display:
Save as JPEG: Save as picture file
Save as AVI: Save as AVI animation file

Save as JPEG:
No Limit: Unrestricted image storage (continuous).
Number: Image storage according to "number".
Save interval: Image storage according to "1/10 second" (e.g.: Enter "10", then 1 frame is stored per second. Enter "50", then 1 frame is stored in 5 seconds).
Size: Image storage according to "size".
Time: Image storage according to "time".
Save Path: Image storage according to "Save Path".
Pre Name: Image storage according to "Prefix Name".

Save as AVI:
No Limit: Unrestricted image storage (continuous).
Number: Image storage according to "number".
Save interval: Image storage according to "1/10 second" (e.g.: Enter "10", then 1 avi file is stored per second. Enter "50", then 5 avi files are stored in 5 seconds).
Size: Image storage according to "size".
Frame Rate: Image storage according to "frame rate".
Time: Image storage according to "time".
Maximum Number of Frame in Each File: Image storage according to "maximum frame".
Save Path: Image storage according to "Save Path".
Pre Name: Image storage according to "Prefix Name".
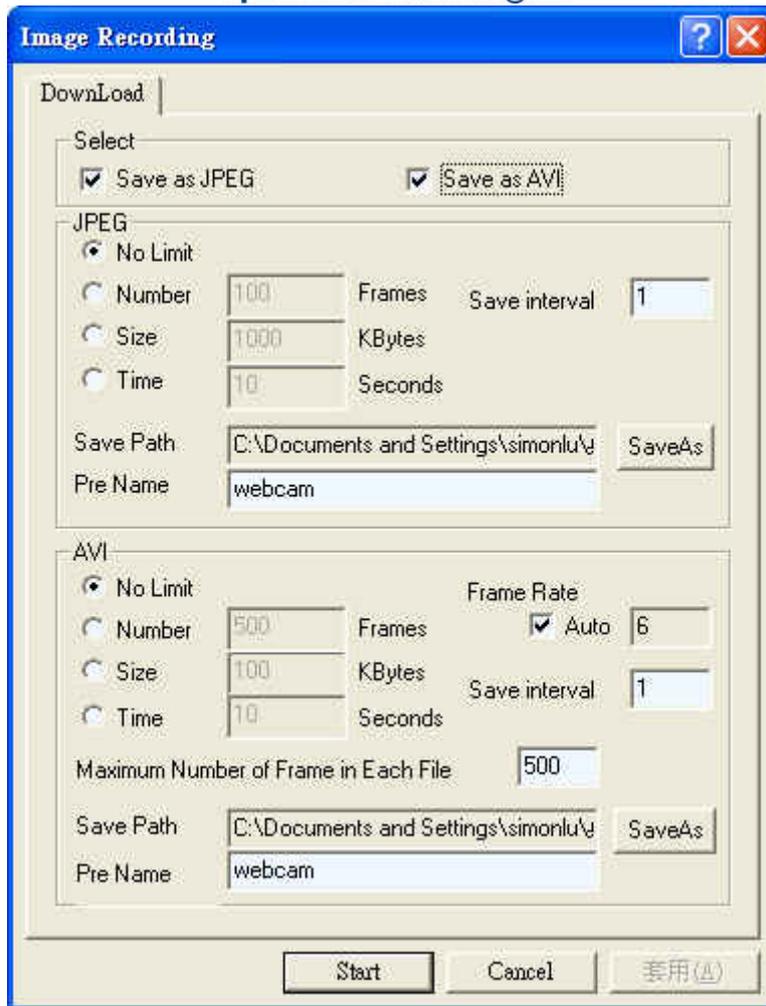
9.3.5 Save Current Picture

Select to save live images.

9.3.6 DVR Control Setup

Supports DVR remote control function (Please refer to 6-1 Front Panel Buttons and Controls, on page 8).

9.3.7 Quality Setting

Network DVR provides 5 image quality settings. The user can select the quality setting from the "Quality" list box.

- Highest
- High
- Medium
- Low
- Lowest

9.3.8 Resolution Setting

Network DVR provides six resolution settings. The user can select the quality setting from the "Resolution" list box.

- 176x144
- 160x120
- 320x240
- 352x288
- 640x480
- 704x576

Note! The device supports auto video system detection (NTSC/ PAL).

9.3.9 Advance Settings

Network DVR provides the advanced settings for the following:

- Brightness
- Contrast
- Saturation
- Hue

9.4. Configuration

Only the administrator can select the "Configuration"; the ordinary user account does not have this privilege to access this function.

9.4.1 System Setting

The number on Port 1 and Port 2 may be changed, press "OK" button to save the setting.
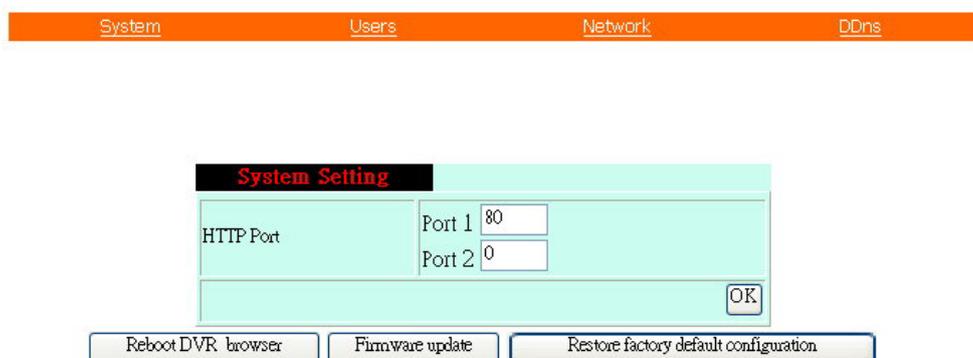
System Setting Display

- Reboot DVR: The system need 20 seconds to reboot the DVR (Rebooting does not effect the recording function).
- FirmWare update (Please refer to 6.7).
- ReStore Factory Default

9.4.2 User Setting

- User Authorization Setting
- Add User or Change Password
- Delete User Account
- Current Users

System	Users	Network	DDns

Users Setting	
Authorization	⊙ Needed ○ No Need
	OK
New user / Change Password	Username [ ]
	Password [ ]
	Confirm [ ]
	Set/Change
Delete User	Username [jiann ▼]
	Delete
Current Users	0:jiann 1:administrator
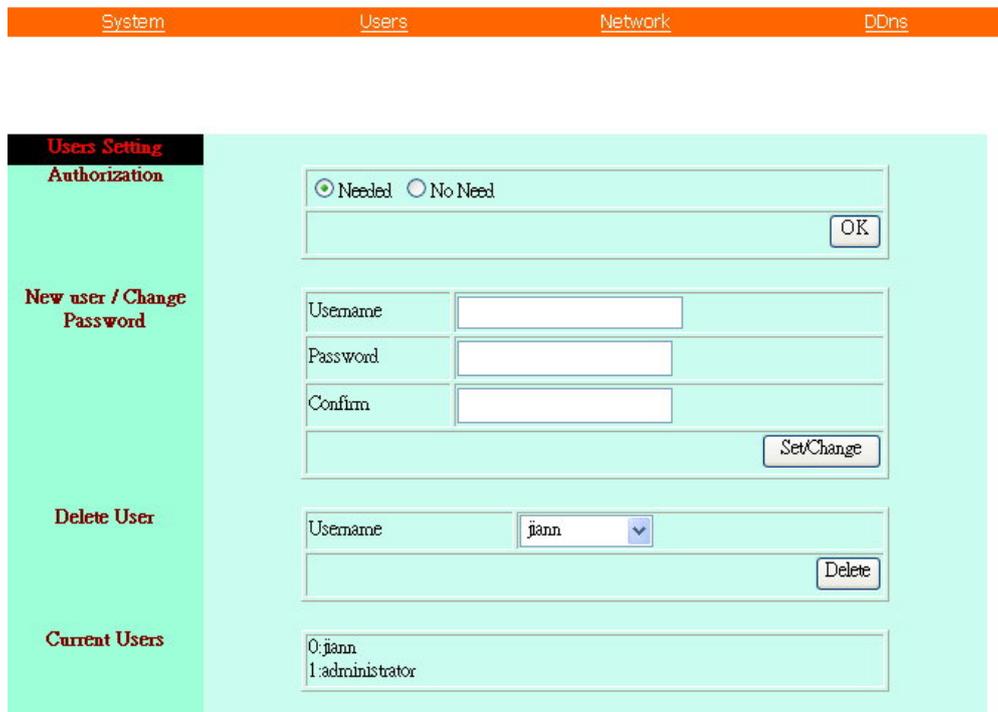
User Setting Display

9.4.2.1 User Authorization Setting

Select item "Needed" to enable user authorization function, then each time before login to Network DVR the Login window will request for "Username" and "Password". To disable user authorization function, select item "No Need".

9.4.2.2 New user/ Change Password

Enter a new user name and password information to create a new user account, or enter an existing user account, then set a new password to replace the old password, and select "OK" to create the account or change password. After selecting "OK" button, the "Current User List" would display the newly created user account.

9.4.2.3 Delete User

Enter the user account that you wish to delete, click "OK" to delete the account. After selecting "OK" button, the selected user account will be deleted from the "Current User List".

9.4.3 Network Setting

9.4.3.1 Fixed IP

To setup follow the steps below:
1. Select item "Manually".
2. Enter "IP Address", "Subnet mask", and "DNS".
3. Click "OK" button to save the setting.
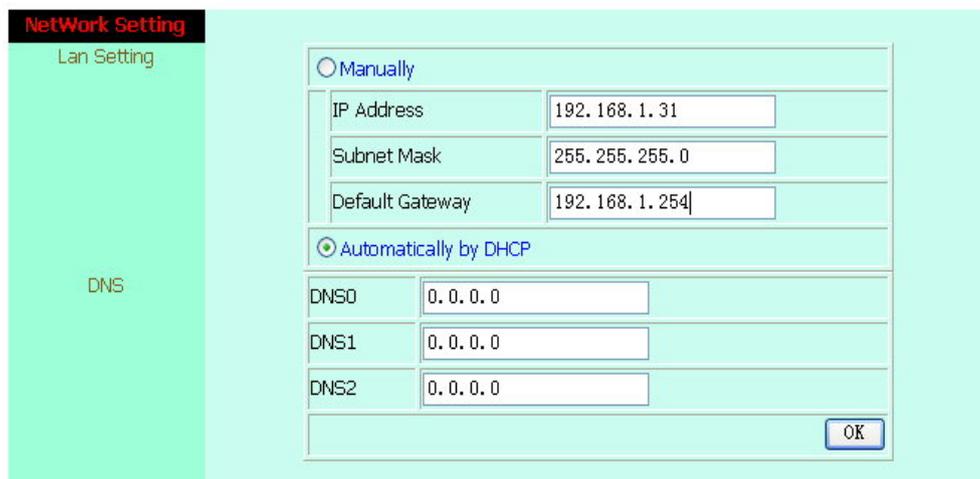
Network Setting Display

9.4.3.2 DHCP

The "DHCP" is automatically set as the default network setting of the Network DVR. When a Network DVR is connected into the LAN, it will issue DHCP packets to request an IP address that is dynamically assigned by the DHCP server. If it is unable to get a DHCP address on a limited tries, the Network DVR will assign a default IP address such as "169.254.1.13".

9.4.3.3 Connect to ADSL by PPPoE mode

To setup follow the steps below:

1. After setup, rebooting enables automatic connection to ADSL.

2. Enter the "Username" and "Password" fields with the account and password provided by the ISP.

3. If item "Send mail after connected" is selected, the mail will be automatically sent when connected to the ISP.

4. Click "OK" button to save the settings.

Note: In order to activate the function, it is necessary to reboot the device after the setup.

ADSL Setting Display

If the Network DVR and ADSL modem are connected by a hub, the user can select item "Dial On Power Up" to perform the connect operation. On contrary, if the Network DVR and ADSL modem are connected directly, then please note the following steps below:

1. Power off Network DVR.
2. Connect Network DVR directly to the ADSL modem (using RJ-45 Ethernet port).
3. Power-up Network DVR.
4. Network DVR start dialing.
5. Once connected, mail the IP address information to the preset e-mail address.
6. After 10 times of connection failure, it aborts the operation and the user can reconnect it by LAN to find the cause.

Note: If item "Send mail after connected" is selected, then the Network DVR will send a mail that contains the message "Dial Up IP Address/ Netmask/ Gateway/ DNS Server" will be mailed to the preset e-mail address.
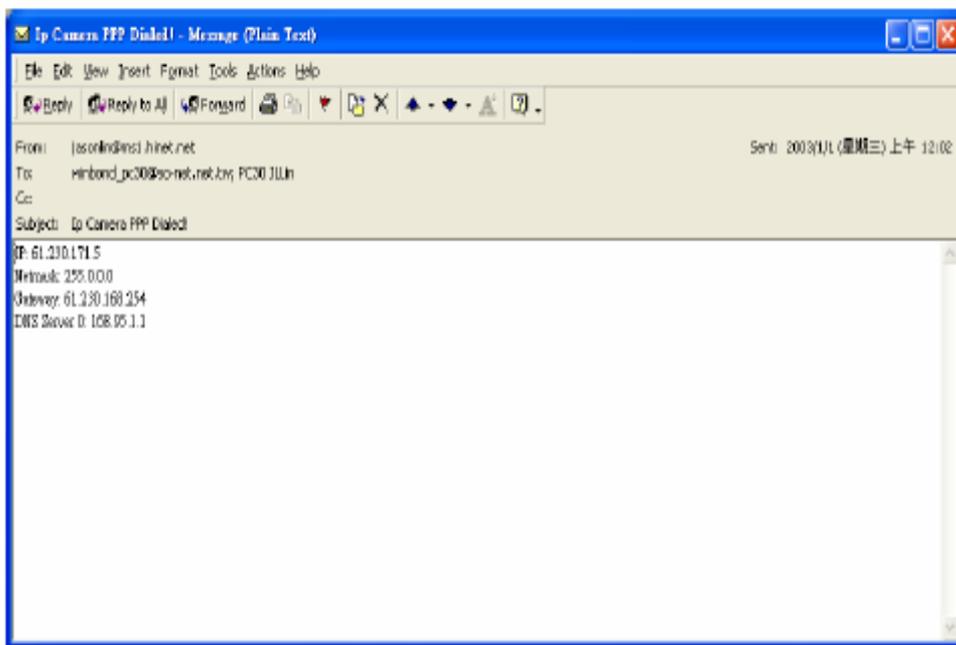

Connection Message Send to User

9.4.4 DDNS Setting

Press "DDNS" server connection to start-up the function. It can autonomously and automatically contact DDNS provider service whenever the router detects that its public IP address has changed. The router logs on to an account you setup and maintain, and updates the account with its latest public IP address. You may register at DDNS Server: **http://www.dyndns.org**.

To setup follow the steps below:

1. Register at DDNS Server: **http://www.dyndns.org**.

2. Apply domain name.

3. Click the "Enable" button. Enter "UserName" and "Password" with "DomainName".


DDNS Setting

After registering the domain name, please enter the information supplied by the administrator to the Network DVR DDNS Account Setting. Select "Enable" button to start-up DDNS server, and press "Submit" button to save the setting.

9.4.5 Firmware Update

When new firmware (bin file) is supplied, you may update the new version firmware (bin file) to your PC by following the procedures below:
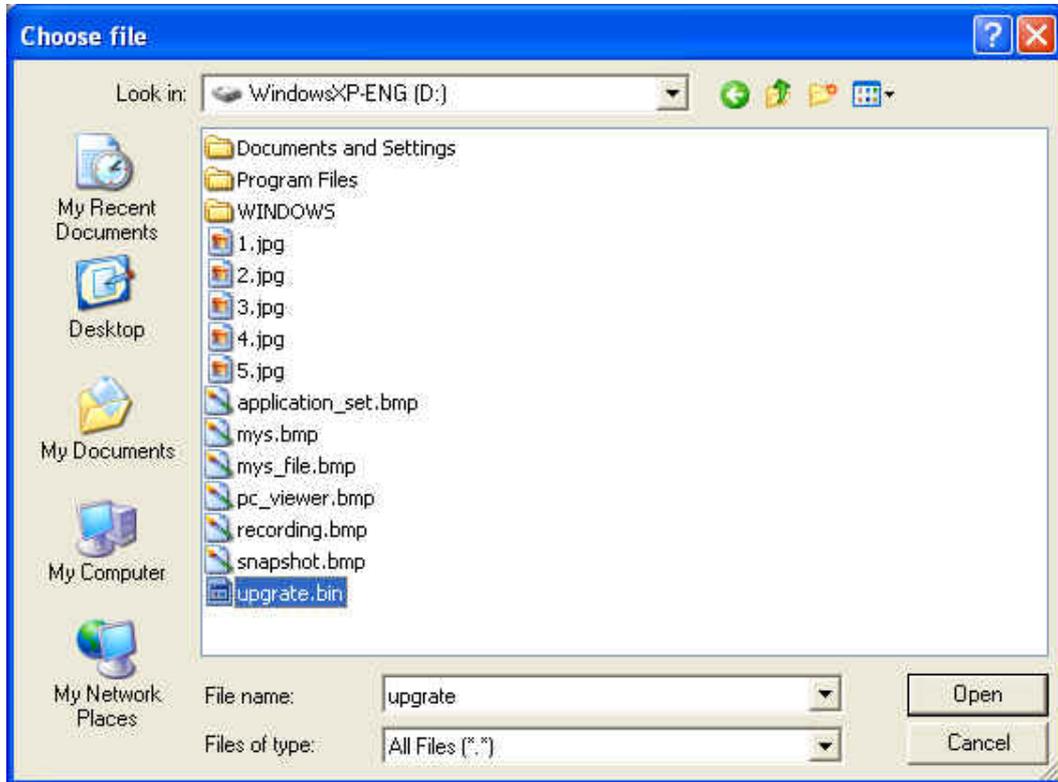
Select the Firmware to be Updated

Uploading the Selected Firmware

Press "Upload" button to display the message below, and follow the instruction to make the necessary setup.

Firmware Update

Press "here" button (1) to update Firmware. Press "here" button (2) to delete the file. The message below displays the writing progress of the firmware update. When Firmware update is completed, it will show 100%, and a message "Click here to reboot DVR browser" will be displayed, requesting to restart the Network DVR.

It is strongly recommended to stop any unnecessary jobs while updating firmware. Please be patient and the updating process may take a long time.

Click **here** to begin to update firmware.

Click **here** to ignore and delete the file uploaded just now.

Writing Progress: 34%

Firmware Update Display

It is strongly recommended to stop any unnecessary jobs while updating firmware. Please be patient and the updating process may take a long time.

Click **here** to begin to update firmware.

Click **here** to ignore and delete the file uploaded just now.

Writing Progress: 100%
Click here to reboot DVR browser.

Firmware Update Completed, prompt to restart the device.

10. CF Card/ HDD Player Software

Description

PC Player Software

System Requirement
※ OS (Operating System) Windows 2000/ XP or later.

※ Use your PC to install DirectX (version DirectX 7.0 or above).

※ Using remote control software, please setup the resolution to 1024x768 or above.

Hardware Requirement
※CPU 1.0 GHz or higher.

※RAM 256 Mbyte or higher.

1. Installation

A. Hardware Installation
Make sure that HDD or CF card is connected through IDE or USB interface to the PC.

B. Software Installation
1. During installation, you will need a desktop or laptop computer that meets these minimum requirements: Windows 2000 or XP.
2. Copy the PC Player Software to your PC (under any directory, e.g.: C:\ ). When user start-up PC Player Software, it will auto create a directory "_config", the purpose is to store all parameter setup supplied by the PC Player Software.

2. Operation

Move the cursor to PC Player Software and double left mouse click to proceed. When proceeding PC Player Software, it auto-detects the CF card or HDD (about 1 min. to auto detect, and may differ depending on file size).

※   Network DVR does not support player software other then PC Player software.

# 3. Software Playback Interface Description
A. User Interface
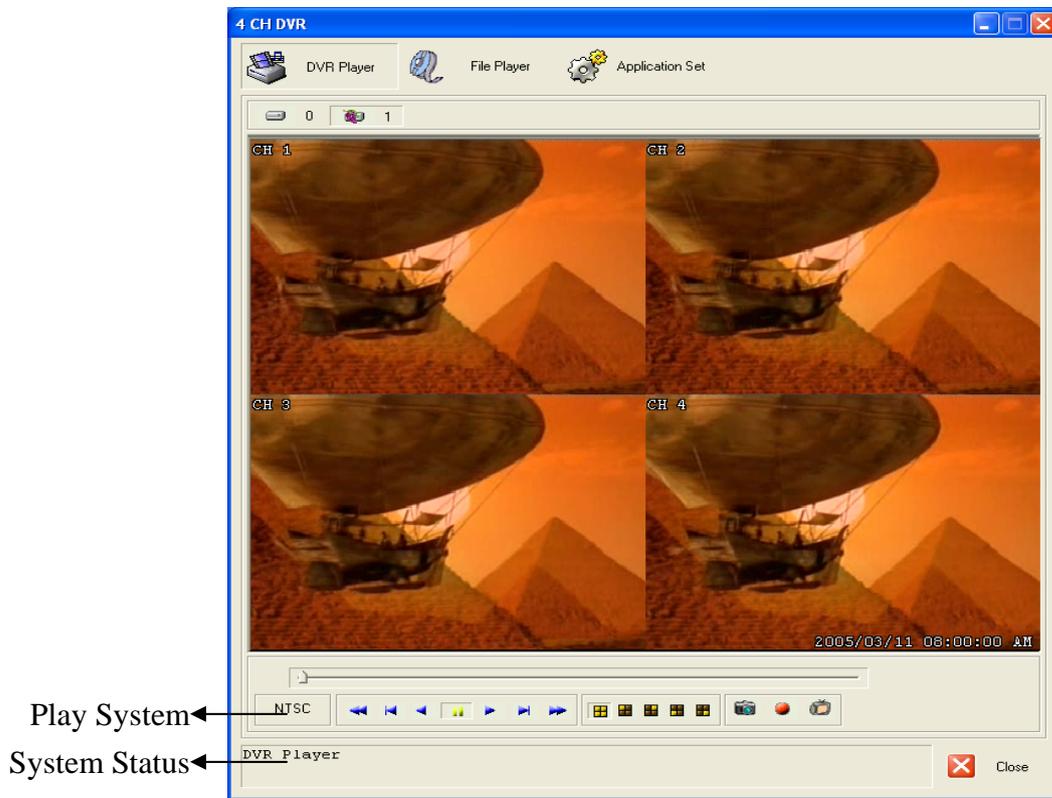
Figure 1

When the system detects stored materials (HDD or CF card), the above graphic (Figure 1) will be shown. User may operate the function buttons to make necessary playback adjustment or store recordings onto the PC.

 ：No Recording Materials Stored　　 ：Recording Material Stored

 ：Fast Rewind　　 ：Step Back One Frame

 ：Rewind　　 ：Pause Playback

 ：Forward　　 ：Step Forward One Frame

 ：Fast Forward　　 ：Quad split screen display

 ：CH1 Full Screen Display　　 ：CH2 Full Screen Display

 ：CH3 Full Screen Display　　 ：CH4 Full Screen Display

 ：Click this button to capture images as BMP file, graphic shown by "Figure 2" will be shown and PC Player Software auto creates a storage content "Capture MYS".

 ：When recording videos onto the PC, first click the "Pause" button, then "Now Recording" button on the graphic shown by "Figure 3". Click again to stop recording (shown on the graphic by "Figure 4") and the PC Player Software auto creates a storage content "Capture MYS".

※　Note! Maximum storage capacity is 700MB, PC Player Software will create one or more files to continue record (e.g.: Recorded video is 30 min. and capacity is 1000MB > 700MB. Therefore, the system will store the recorded material into 2 files: one file (700MB) and the other file (300MB)).

 ：Click this button to playback recorded materials (stored on PC), graphic show by "Figure 5" will be displayed. Please select the file to playback, press "open" to playback. This button function is similar to "File Player" function.

 ：Click this button to shut the system.
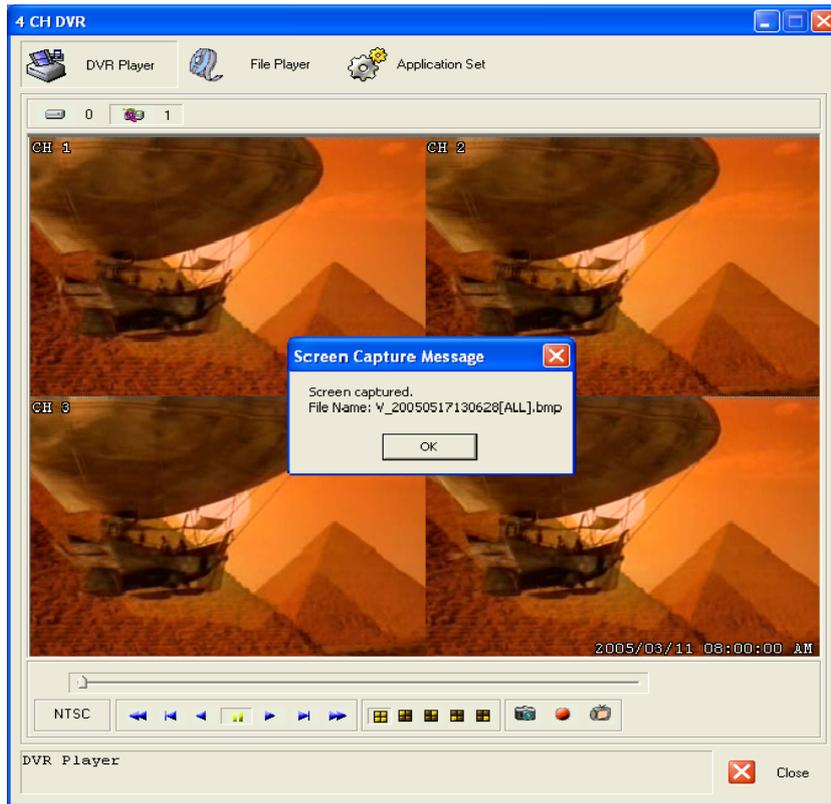
Figure 2
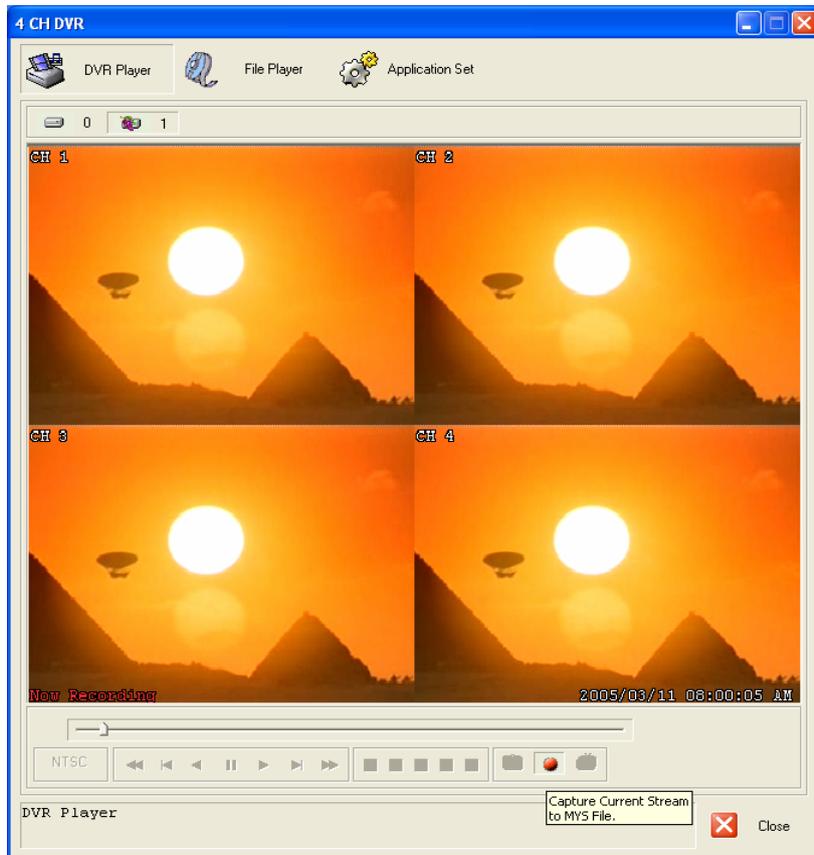
Figure 3
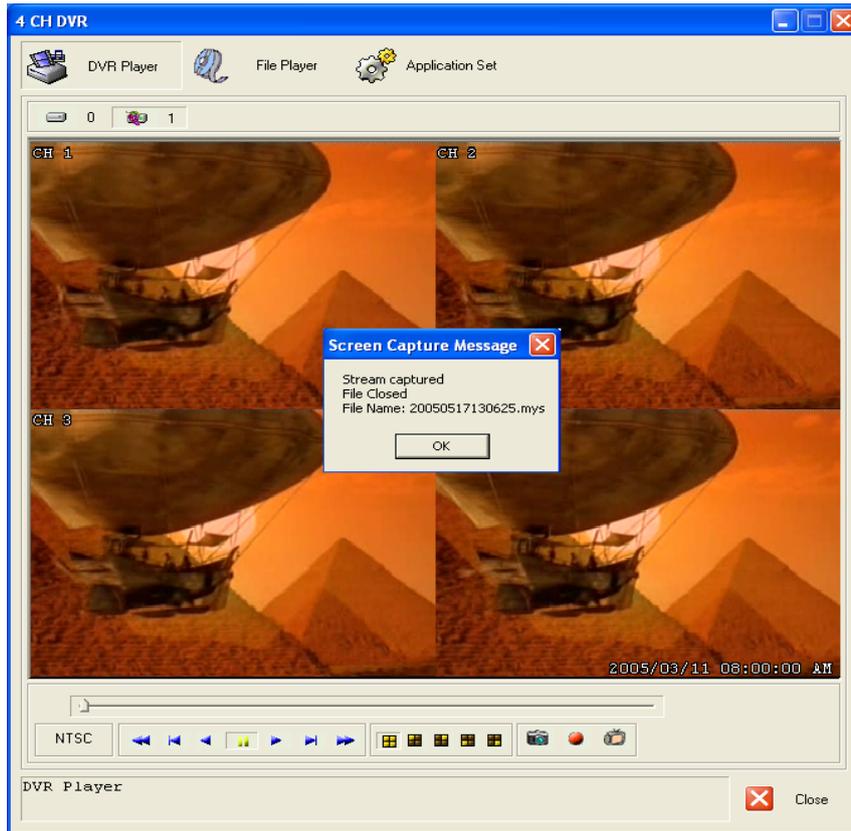
Figure 4
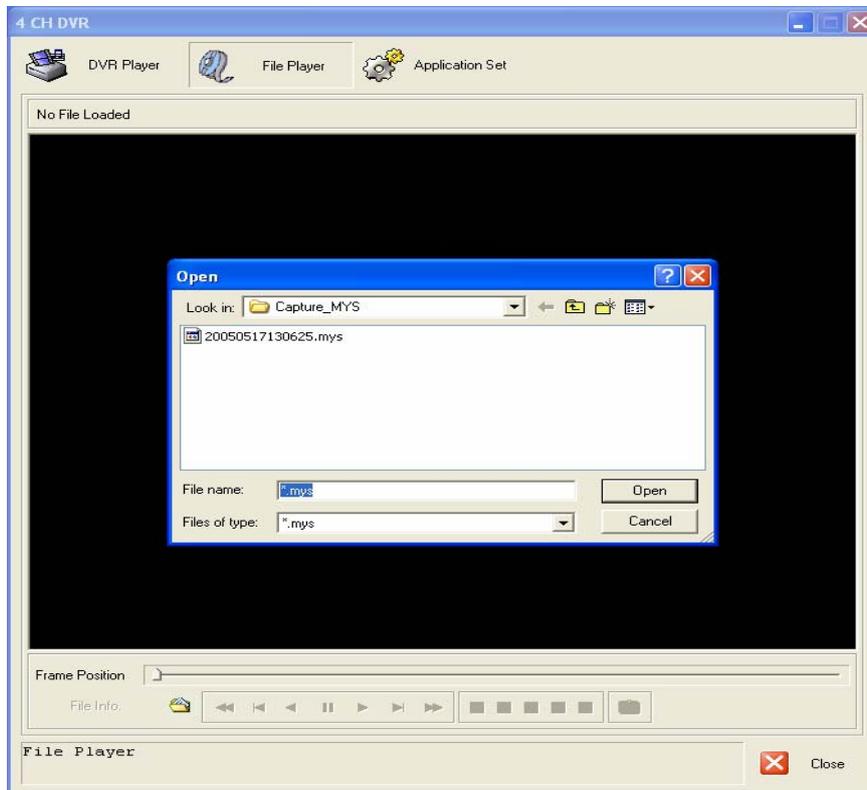
Figure 5

B. Parameter Setup

To setup the parameter, click "Parameter Setup" button to show the graphic display below (Figure 6):
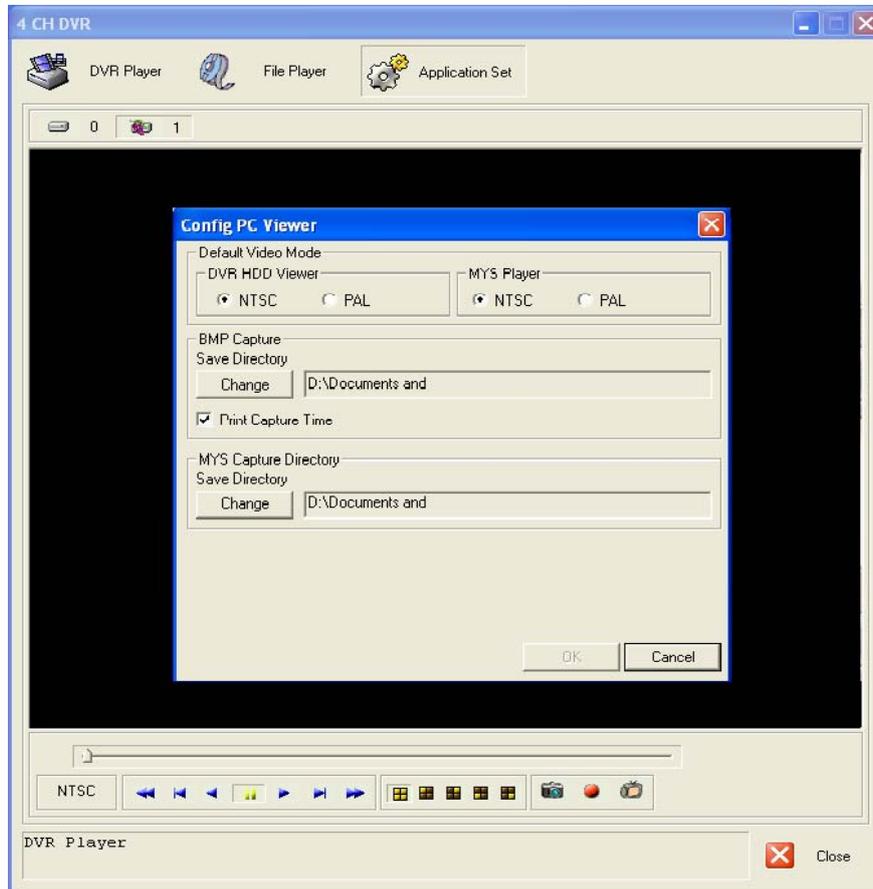
Figure 6

11. TROUBLESHOOTING

Question	Answer
Why can't the device read the hard disk?	Please reinstall the hard disk, make sure that it is properly connected, and reboot the device.
Why can't the device read the CF card?	Please reinsert the CF card, make sure that it is properly connected and reboot the device.
Suggested HDD Brand	Maxtor, Seagate, and Hitachi.
Suggested CF card Brand	Apacer, Sandisk, Transcend, Hagiware, A-DATA and Silicon.

※CF Card Notice!

After inserting the CF card to the CF card slot on the front panel of the DVR, status LED will lit (orange). Enter menu, select "CF card setting" function to detect the CF card, and to display the total capacity and remaining capacity. Error may occur when using certain brands. When error occurs, the message "HDD R/W IS NOT READY" or "HARD DISK FAIL" will be displayed, informing that the total capacity and remaining capacity displayed is incorrect.

When error is encountered (mentioned above), please note the following:
1. After inserting the CF card to the CF card slot on the front panel of the DVR. Please wait for 30 seconds (when the status LED goes off (orange)) before proceeding CF card detection or backup function.
2. During recording, do not insert the CF card, recording errors may occur.
3. Imprudently inserting the CF card during recording, results recording errors. Please reboot the DVR and when the message "RECOVER HDD" appears, press "ENTER" button to repair the previous recorded videos.

Please take note on the condition mentioned above.

12. SPECIFICATIONS

<table>
<tr><td rowspan="4">Video</td><td>Format</td><td>NTSC/EIA or PAL/CCIR</td></tr>
<tr><td>Compression</td><td>Modified M-JPEG</td></tr>
<tr><td>Input</td><td>4CH, BNC</td></tr>
<tr><td>Output</td><td>1 x BNC, 1 x S-Video</td></tr>
<tr><td rowspan="3">Display</td><td>Resolution</td><td>720 x 480 (NTSC), 720 x 576 (PAL)</td></tr>
<tr><td>Frame Rate</td><td>Max. 120/100 fps (NTSC/PAL)</td></tr>
<tr><td>Division</td><td>Single, Quad, Sequence</td></tr>
<tr><td rowspan="4">Recording</td><td>Resolution</td><td>Max. 640 x 244 (NTSC), 640 x 272 (PAL)</td></tr>
<tr><td>Frame Rate</td><td>Max. 30/25 fps (NTSC/PAL)</td></tr>
<tr><td>Quality</td><td>High / Normal / Low</td></tr>
<tr><td>Mode</td><td>Manual / Schedule / Alarm / Motion Detection</td></tr>
<tr><td rowspan="2">HDD</td><td>Format</td><td>1 x 3.5" IDE HDD (Max. 250GB)</td></tr>
<tr><td>Removable</td><td>1 x HDD RACK</td></tr>
<tr><td rowspan="3">Alarm</td><td>Input/ Output</td><td>4/ 1</td></tr>
<tr><td>Trigger Mode</td><td>Motion Detection, Sensor Input</td></tr>
<tr><td>Function</td><td>Recording, Relay Output, Sound Alert</td></tr>
<tr><td colspan="2">Post Alarm</td><td>5~30sec</td></tr>
<tr><td colspan="2">Search Method</td><td>By Date, Time, Event</td></tr>
<tr><td colspan="2">Internet</td><td>10/100BaseT Ethernet (RJ45)</td></tr>
<tr><td colspan="2">Backup Device</td><td>CF-Card, HDD, VCR,
TCP/IP network (live & playback)</td></tr>
<tr><td colspan="2">Power Supply</td><td>DC 12V / 4A</td></tr>
<tr><td colspan="2">Weight</td><td>5kg</td></tr>
<tr><td colspan="2">Dimension (W*H*D)</td><td>430mm x 320mm x 80mm</td></tr>
<tr><td colspan="2">Operating Environment</td><td>30 ~ 80% RH, 5 ° C ~ 40 ° C (41 ° F ~ 104 ° F)</td></tr>
</table>

MEMO

DVR-IP4CF